

MOTOR AGE

WHITE WINS FIRST OF YEAR'S TESTS



CHECKING OUT CARS AT Q. C. M. C. HEADQUARTERS



BIG CROWD AROUND THE FINISHING POINT

PHILADELPHIA, Pa., Jan. 5—The White steamer has been adjudged the winner of the Macdonald & Campbell cup, the chief trophy in the second annual reliability contest of the Quaker City Motor Club, the opening gun of the campaign of 1908. The car was driven by H. K. Sheridan, winner of the Hower trophy, and it was only after one of the greatest struggles ever put up for a motoring prize that Sheridan was picked the winner. It was a desperate battle and for a time there threatened all sorts of trouble for the technical committee, for in the original test, which was finished last Thursday, three were declared to be perfect in the touring car division. The committee thereupon promptly ordered a run-off of the tie and the affair was contested Saturday.

Even this did not settle matters, for after the White, Peerless and Studebaker had completed the 172-mile journey in a day it was found that each had complied with all the conditions, making all controls on time, despite the fact that the trip was made under the most adverse weather conditions—rain, sleet, snow and hail. This put the deciding of the test up to the technical committee, which carefully examined the three cars in the club garage. Then there was a long wrangle and it was late

this evening before the announcement was made that the White had been placed first, Peerless second and Studebaker third.

The committee was not ready to go into details regarding the grounds for its decision. It is said that there was nothing really serious discovered in the examination and that the verdict was based on minor details. For instance, it is said that on the White the only thing found loose was a wood screw in a fender. What it was on the other two cars cannot be ascer-

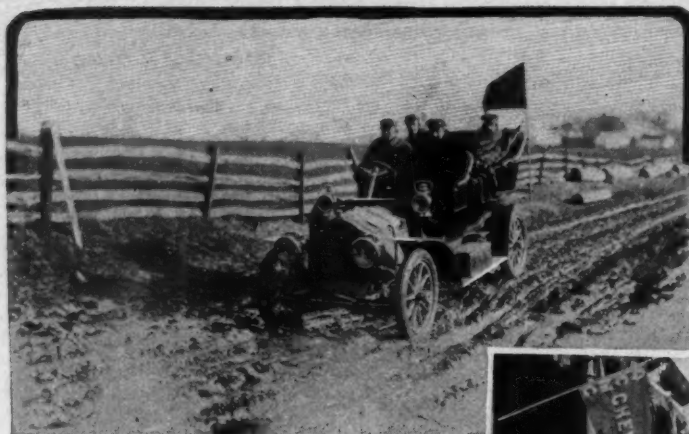
tained tonight, but it is said that never before was a technical committee called on to split hairs as it had to do in this case. It was almost as near another tie as it is possible to make it.

The run-off of the three clean-score cars which tied for class A honors was completed at 4:15 yesterday afternoon, without road penalization for any of the trio. The cars were immediately sequestered and examined most carefully by the technical committee, which prepared a report, but was unable to scare up the contest committee, before which it had to lay its findings before making them public.

Those who took part in yesterday's test—many of them veterans—aver that never before has a contest for blood been pulled off under such adverse weather and road conditions. A heavy snow storm, driven by a veritable gale, lashed the faces of the cars' occupants until they were raw. Later the snow was succeeded by hail and sleet, and then by rain. Veils were purchased at Allentown to protect the faces of the contestants, but they were soon plastered with wet snow and sleet and had to be discarded. The rain, which came down in torrents, soaked the heavy wraps through and through, rubber garments having been left behind in the belief that low tempera-



WINNING WHITE CHECKING IN



SAMPLE OF THE BAD ROADS



LOCOMOBILE LEAVING ALLENTOWN

ture would be the only thing in the weather line with which the travelers would have to contend. When the cars finished at the city hall about 20 minutes ahead of time drivers and passengers were so nearly helpless it was decided to pass the cars through the control at once and let all hands get under cover.

In the run-off the contest committee set a 1-day schedule for the 172-mile course, instead of 2 days, as in the original run. The times allowed between controls were also the same, an early start being made to insure finishing before dark. Eight hours and 48 minutes were allowed to cover the course, but deducting lay-overs in controls, the actual running time did not exceed 7 hours.

In the Peerless, besides Driver Maucher, were Contest Committee Chairman E. C. Johnson, William C. Middleton, a Studebaker representative; S. Stankowitch, Jr., and Charles Lobelle, the last two named looking after the interests of the Quaker City Automobile Co., which entered the car. With Driver Yerger in the Studebaker were Contest Committeeman Wayne Davis; Frank Stockbridge, who represented the White company, and A. J. King, owner of the car. In the White were Driver Hal Sheridan, E. H. Lewis, of the contest committee; George H. Smith, local White manager, and J. McCauley, an observer appointed in the Peerless interests.

A 10-minute delay at the start, and the Peerless was sent away at 7:40 a. m., the Studebaker at 7:41 and the White at 7:42. Doylestown was reached many minutes ahead of time by all three cars. Then came the Ottsville control, 12 miles away. But all the drivers knew the ropes now, and, besides, the road was not blocked by cripples, and the sharp summits between the deep ruts had been worn and thawed down by the sun since Wednesday, so the 38 minutes proved ample to reach the control. Heavy snow began to fall as the smooth going along the Delaware was reached, and the real hardships of drivers and passengers commenced.

The Easton and Allentown controls were reached inside the limit by all three, although the Peerless had a close call at the



CHECKING IN AT KUTZTOWN

former, a blow-out at Raubsville, and a farmer's wagon blocking the road necessitating the fastest kind of driving to enable Maucher to reach the control with just 10 seconds to spare.

The canal leading to Kutztown was, if anything, in worse condition than on Thursday last, but by careful driving in the teeth of the westerly gale, with all hands soaked to the skin by the heavy downpour of rain and sleet, the 18-mile quagmire was successfully negotiated well within the limit. After that, with hard but slippery roads, it was plain sailing all the way home.

Viewed from every aspect, the run demonstrated the mechanical perfection which the American motor car has attained. In almost every instance the road penalizations were due to loss of time from tire trouble—one broken crank shaft, one stripped gear in rear axle, a sprung axle, three broken springs, a couple of wheels out of true represent the other faults for which penalties were inflicted—a ridiculously small total when it is considered that forty cars in classes A and B were driven almost to the limit over roads which would have made a mountain mule pause to consider.

There has been, however, a regrettable amount of breaking into print as a result of the run. First, there were Driver Sheridan's two protests—one against allowing the Studebaker to enter the clean-score class and the other against showing the same lenience to the Peerless. Then President Percy Neel delivered himself of over half a column of agate explaining how the Peerless transmission is always turned out of the factory with a 1/1000-inch play, and taking Sheridan to task for insinuating the

Peerless had been allowed to lay in its own garage for 16 or 17 hours before the committee compared the condition of its transmission with those of several new Peerlesses. Such a veiled charge, he said, was a slur not only on the honesty of the Quaker City Automobile Co., but on the contest committee as well. Not knowing the committee would go over the car again, it was washed and put on the floor ready for demonstration work. As a wind-up, he gives the White people a sly dig by asserting that one of the tire brackets carried on their car was broken, thus showing that their claim of nothing broken was a mistake, he asserts.

THREE-CORNERED TIE RESULTS

Philadelphia, Jan. 4.—A three-cornered tie between the White, Studebaker and Peerless touring cars—and another trip over the course to break the tie—class A; a clean victory for the Packard roadster in class B; a Maxwell triumph in class C for small runabouts, and a personal tribute to the popularity of Daniel Webster, the Frayer-Miller's crack driver, in the free-lance division—these were the net results of the second annual New Year's endurance run of the Quaker City Motor Club on January 1 and 2. When the cars had all reported at the city hall finish and had retraced their steps to the Hotel Majestic, where the technical committee was holding forth, it became apparent almost at once that there was something besides gasoline vapor in the air. There was trouble—in chunks. Six clean-score cars were awaiting examination to determine their condition after the run. There were four others whose road penalties could be expressed in a single figure and whose entrants saw a possible chance if the lily-whites should fall down in any respect. The technical men got busy sizing up shock absorbers, and two of the six cleaners knew that some of their absorbers had been failing to absorb for some time. Then arose the question, Is a shock absorber a part of a car's equipment? "Yes," asserted those whose cars were whole in this respect. "No," urged those with crippled absorbers under them. The

committee would decide in secret session, was the verdict—and the examination proceeded.

Fifteen cars in all were submitted to the technical committee—twelve of them in class A. It was a thankless job for President Charles Swain and H. T. Paist, who between them did the bulk of the work, although two additional members had been named. They worked faithfully till after dark, and then retired with their data to one of the far-away rooms of the big Majestic, where in secret session with the contest committee they began to digest the contents of the checkers', drivers' and observers' cards. This job, where an even half hundred cars are concerned, is no easy one. And so the waiting contestants found it. All of them had time to go home, get washed up and return, and still the session continued behind closed doors. Shortly after midnight the anxious watchers were rewarded by a sight of Chairman E. C. Johnson of the contest committee coming out of the elevator with a paper in his hand. He tacked it up in a prominent place—and then the storm broke!

"What!" howled the White people. "The Studebaker with a broken shock absorber and the Peerless with a loose transmission tied with our car, which has not the semblance of a road or technical penalty?"

"Shock absorbers, as anyone conversant with the business knows," calmly returned the Studebaker sharps, "are not a part of a car, and should not be considered by the committee any more than a punctured tire should."

"Precedent in the cases both of the Glidden tour and the Chicago 3-day run says otherwise. Penalties were inflicted for broken absorbers in both those contests," came back the Whites. "But that doesn't let the Peerless out. Where does that loose transmission come in?"

"Factory rule always to send out Peer-

lesses with plenty of play in the transmission. All our cars are that way," explained Bert Maucher. As a matter of fact, the committee had at first imposed ten points' penalty for the loose transmission and later removed the demerits, apparently having been convinced that the statement of the Peerless people was correct. Furthermore, to settle the claim to the possession of the MacDonald & Campbell cup, it was decided that the trio of clean-scorers must make a 1-day trip over the 172-mile course on Saturday.

The three of the six clean-scorers on the road which failed to get away from the technical committee without bad marks were the Stoddard-Dayton, the Oldsmobile and the Stearns. The last named had a broken front spring, which gave it nine demerits. The Stoddard-Dayton's penalties were due to the working loose of various bolts and nuts in a car which had been too little on the road to make its defects apparent to the tuners-up. Thomas Berger, who drove the Oldsmobile with the skill of a veteran, despite the fact that he is still a kid, seems to have a real grievance, and also at one time contemplated a protest. In getting the car in trim during the week preceding the run he had had a slight collision with a curb in skidding around a thawed mud corner. The wheel which hit the curb suffered a slight twist—not sufficient to bother about, Berger said. He brought his car through the run clean.

The second stage, from Doylestown to Ottsville, a trifle short of 12 miles, turned what at first blush looked like a cinch into a real endurance run. As an eliminator it was a winner. Picture a clay road churned up under the wheels of hundreds of farm wagons during a warm, rainy week, and then frozen to adamant by a sudden fall in the temperature! The ruts varied from 6 to 15 inches in depth, with stones frozen in at all angles. Some cars suffered as many as four punctures on

this one stretch, which, the contest committee figured, should be comfortably negotiated in 38 minutes. After fixing up a puncture any attempt to make up time meant more tire trouble. The careful ones who refused to strain their cars likewise refused to climb out of the ruts to accommodate those behind them who were willing to take chances. As a result fully a score of cars suffered penalization at the Ottsville control, and their drivers lost interest in the run from that point, except from the pleasure aspect. Not a few of them were so disgusted at this early dashing of their hopes that they even forgot or refused to turn in their cards at the night control at Allentown.

Counting official cars there were fifty-six machines on the road, not including the Franklin of O. H. Dietrich, of Allentown, which was pulling off a non-motor-stop stunt. After covering the entire route last Sunday in 8½ hours the engine was kept running in the Dietrich Motor Car Co.'s garage until 6 o'clock New Year's morning when it left for the start in this city, accompanied the run back to Allentown on Wednesday, came on to Philadelphia Thursday, returned immediately afterward to Allentown, and was stopped at 3 p. m. Friday, after a continuous run of 127 hours and 15 minutes.

FIFTY CARS START IN TEST

Philadelphia, Pa., Jan. 1.—There was just fifty cars entered in the four classes which lined up in front of the Hotel Majestic, and Starter Clyde Woolson gave the first car the word exactly at 9 o'clock. At 1-minute intervals the others followed, the White press car, the second patrol car and President Swain's Apperson Jackrabbit bringing up the rear. The 26-mile run to Doylestown gave little evidence of the fate in store for the majority of the contestants in all classes. The pike was hard and smooth. The air was wintry, but everyone was prepared for that. The 76

STATISTICS OF PHILADELPHIA RUN, THE FIRST RELIABILITY TEST OF YEAR

CLASS A—TOURING CARS—MACDONALD & CAMPBELL CUP

Car	Driver	Road	Technical Penalties	Total	
White	H. K. Sheridan	0	0	0	
Studebaker	Frank Yerger	0	0	0	
Peerless	Bert Maucher	0	0	0	
Matheson	Ross Anderson	1	*	1	
Lozier	H. Michener	2	*	2	
Matheson	J. M. Dietrich	3	0	3	
Oldsmobile	T. W. Berger	0	5	5	
Pullman	H. P. Schade	7	*	7	
Stearns	O. W. Hoffman	0	9	9	
Franklin	W. Crawford	11	*	11	
Locomobile	W. J. Fox	12	10	22	
Kisselkar	Webb Jay	24	*	24	
Stevens-Duryea	J. A. Moran	26	*	26	
Acme	Mahlon Leinaw	26	*	26	
Peerless	P. B. Huyette	31	*	31	
Royal Tourist	H. B. Hills, Jr.	38	*	38	
Frayer-Miller	H. Knepper	16	25	41	
Corbin	W. Cathcart	42	*	42	
Stoddard-Dayton	Robert Shirk	0	45	45	
Studebaker	A. J. King	64	*	64	
Garford	Frank Leffen	15	50	65	
Autocar	P. Aschenfelder	107	*	107	
Locomobile	J. W. Florida	109	0	109	
American	C. A. Percival	121	*	121	
Crawford	T. M. Twining	168	*	168	
Columbia	H. P. Fry	174	*	174	
Mitchell	H. W. Greenawalt	186	*	186	
American	Mora	A. J. Martin	222	*	222

CLASS B—ROADSTERS—QUAKER CITY MOTOR CLUB CUP

Car	Driver	Road	Technical Penalties	Total
Packard	C. J. Trumbull	0	0	0
Thomas	E. T. Youse	15	*	15
Ford	A. A. Jones	20	*	20
Pullman	S. Lafean	34	*	34
Pullman	R. Morton	37	0	37
Stearns	S. H. Collom	0	40	40
Autocar	R. W. Maynes	100	*	100
Oldsmobile	P. E. Varney	112	*	112
Ford	William Henry	397	*	397
Parkin	J. W. Parkin, Jr.	Dropped out		
Columbia	W. Haupt	Dropped out		
Packard	Thomas Wilkinson	Dropped out		

CLASS C—SMALL RUNABOUTS—SPECIAL Q. C. M. C. CUP

Car	Driver	Road	Technical Penalties	Total
Maxwell	T. Hathaway	51	*	51
Mitchell	W. M. Cram	62	*	62
Pullman	William Rockey	180	*	180
Pullman	J. Johnson	Dropped out		
Autocar	J. A. Hess	Dropped out		

CLASS D—PLEASURE—Q. C. M. C. CUP FOR "MOST POPULAR DRIVER"

Car	Driver	Notes
Frayer-Miller	Daniel Webster	14 votes
Packard	Roy F. Spear	12 votes
Pope-Toledo	Howard Miller	5 votes
Reo	Harry Greenwood	2 votes
Reo	A. Ford	

* Cars not examined by contest committee



LINING UP FOR THE START OF THE CONTEST

minutes allowed to reach the Doylestown control was ample—too much, in the opinion of some of the contestants. It was but 12 miles to Ottsville, the natives said, and 38 minutes should give them time to spare. All went well to Plumsteadville, when the red clay district began. Such rats! Such hard-frozen hillocks! Such sharp stones! Those who wanted to push to the front found the process a different proposition than on the wide and smooth pike below Doylestown. But many of them tried to pass around their leaders, and soon came to grief. Punctures, punctures everywhere! The high-numbered fellows away back saw somethin' was doin' when they noticed the numerous repair operations being pulled off along the road, and concluded to take things easy. Anything faster than a 10-mile gait, with safety, was a manifest impossibility. It needed but a little mental arithmetic to show the bulk of the contestants that their finish, as regards a clean score, was in sight. Those at the head of the line had a manifest advantage, for the possibility of being delayed by those ahead increased the farther back the contestant. Such a sudden piling up of penalties never was witnessed in a similar contest. It certainly was a bad half-hour, and when the comparative terra firma of the Delaware river road at Kintnersville was reached there were but six class A clean scores out of twenty-eight starters, and but two clean sheets out of an even dozen in class B.

Along the river road a different condition existed—a thin, greasy covering of thawed macadam. But the bottom was but half an inch under the surface, and tire chains did the rest. Time lost on the Ottsville leg was in almost every instance recovered in the 18-mile run to Easton, for which 54 minutes had been allowed. The 22-mile round-about jaunt from Easton to the night control at Allentown, for which 66 minutes was allowed, was another easy proposition for nearly all the cars, despite a few very bad spots. Of the penalized cars but nine had suffered more than ten

bad marks, and six of these had fewer than twenty-five, so that the entry into Allentown was in the nature of a procession, with the sidewalks lined with New Year's holiday crowds.

The reception committee of Allentonians extended themselves to the limit in providing entertainment for the nearly 250 visitors. At 6 o'clock there was a turkey supper at the Hotel Allen. Then followed a theater party and a dance, with scores of Allentown beauties on hand to accommodate the two-steppers.

STRUGGLE ON SECOND DAY

Philadelphia, Pa., Jan. 2—Another lemon was handed the contestants right off the reel in the 57 minutes allowed them to reach the first control at Kutztown, 18 miles. Very few of the penalized cars failed to add a few demerits on this leg of the journey. All the half-dozen class A clean-score cars, which started early, managed to pull through safely, however. It was summer amusement to negotiate the remaining 75 miles of the course home, for hard, smooth pikes prevailed all the way. At Reading, which was reached just before noon, it seemed as if the entire

town had turned out to greet the travelers. Pottstown also accorded them a hearty reception, but at Norristown the local club members fairly outdid themselves. They not only induced everybody to hang out flags, but had the streets roped off and patrolled and gave the contestants carte blanche to burn up the main street, besides serving much-needed coffee and sandwiches to everybody on the cars. There was no dinner stop, be it remembered, and everybody was properly hungry. The police in the Montgomery county towns, who have been the bête noir of motorists for years, actually turned their backs and looked the other way when the contestants came bowling along at a speed often more than double that allowed by local ordinances! The Montgomery motorists are evidently beginning to acquire a pull.

E. T. Youse's big Thomas 70, a class B car, was the first to report at the finish. Youse had a bunch of hard luck after finishing clean the first day. He went into the night control with two punctured tires, and had to fix them on his own time after checking out at Allentown. He was last away from there, and expected to make up his loss of time before reaching Kutztown; but the cripples in front, whom he found it impossible to go around in the frightful quagmires which the Berks countians call roads, made him lose 15 minutes at that control. This gave him but 33 minutes to do the 16½ miles from Kutztown to Reading, but he did it in 27.

Many of the contestants criticised the schedule, saying that the committee had figured out their times regardless of the state of the roads. They allowed about 3 minutes to a mile along hard pike roads and adhered to the same schedule on many stretches where that gait meant actual danger to machines and occupants. Fortunately, apart from a slight shaking up and a few cuts suffered by Hugh Thompson, an observer in H. P. Fry's Columbia, who was thrown from his seat by a particularly bad water-break on the road to Ottsville, there were no mishaps.



PACKARD PATROL CAR, CARRYING CHECKERS

MOTOR CARD FOR THIS YEAR BRILLIANT ONE

CHICAGO, Jan. 6.—Promoters of big motoring events are making their plans early and as a result even at this date one is able to look ahead and get an idea of what the 1908 card has to offer. The outlook is a promising one, for in addition to most of the old fixtures there are several new competitions which promise to become classics. In the United States there will be three stock chassis races as well as the Vanderbilt.

First on the calendar is the proposed New York-Paris endurance test, an affair which has been hastily arranged and which, some people think, never will be contested. It is planned to start from New York February 15 and the caravan will hike across the American continent to San Francisco, where the cars will be put aboard steamers and shipped to Seattle, the gateway to Alaska. This will take 3 days. At Seattle the steamer will again be utilized to take the contestants to Skagway, from which point they will travel through Alaska to Prince of Wales cape. They will cross the Behring straits on the ice, landing at East cape before the thaw sets in. Then they strike for the Russian post road which will take them to the highway that was followed in the Pekin-Paris race.

Ormond comes next on the schedule, being booked for the week of March 2-9 and while the New York-Paris outfit is struggling across the American continent the speed merchants will be making wonderful time over the hot sands of Florida. Ormond's card, as announced by the Automobile Club of America, will be found on another page in this issue of Motor Age.

Jumping from Ormond the circuit-chasers will go to Savannah, Ga., the Savannah Automobile Club having selected March 15 for its stock car races. The exact program is not known as yet, the Georgians having been offered a sanction under certain conditions which they have until January 10 to accept. They have two courses.

Tentative plans have been made for a Jacksonville-Miami run, which will be a 5-day affair of 366 miles. Night stops will be made at Ormond, Rockledge, Fort Pierce and Palm Beach, but so far no definite dates have been announced, although it is presumed that the affair will be some time in March.

Following these events comes a road race of some pretensions, the Westchester stock car event which is being engineered by Robert Lee Morrell as chairman of the committee in charge of the event. In this race any American or foreign stock chassis is eligible, providing its total piston area shall not exceed 103.87 inches, which will admit the equivalent of a four-cylinder engine having a bore of 5 1/4 inches. This rule places no restrictions on steam cars. The word "stock chassis" means that the maker of the same shall have manufactured and actually delivered or have ready

Three Stock Chassis Races, the Vanderbilt and Glidden American Features—Europe Busy

for immediate delivery at least ten similar cars on or before March 31, 1908. No more than three cars of any one make can be entered and the field will be limited to forty. The trophy to be contested for will be the Briarcliff cup.

The first of the European road races will be the Targa Florio, which last year was won by Nazzaro in a Fiat. This classic is scheduled for May 10 over a course of 450 kilometers over the mountainous roads of Sicily. A change in the rules will permit of the entry of cars propelled by a four-cylinder four-stroke engine with a bore not less than 120 and not greater than 130 millimeters. The first prize will be the Targa Florio, the king of Italy's gold medal and \$3,000 in money. Second gets \$1,600, third \$800, fourth \$400 and fifth \$200. No maker can enter more than three cars and the entry fee is \$200 a car. As a curtain-raiser to the big event there will be a contest for voituresses at 300 kilometers, the contest to be run on one of three days preceding the Targa Florio. This is confined to one-cylinder cars of a maximum bore of 100 millimeters and not weighing more than 500 kilograms, and to two-cylinder cars of a maximum bore of 80 millimeters and a weight of 600 kilograms. In addition to a handsome silver cup the winner gets \$800 in money. Second and third prizes are each worth \$400, while fourth and fifth each gets \$100. The entry fee is \$60 a car.

Early in June the Royal Automobile Club of England will put on its big test, which is a radical departure from anything ever before attempted. It is designed to take the place of the tourist trophy races on the Isle of Man, but this determination on the part of the Royal Automobile Club has stirred up a hornet's nest among the enthusiasts. As planned now the 1908 trial will probably cover a distance of something more than 2,000 miles, with 20 miles of hill-climbs and a 200-mile race on the Brooklands track to provide a sporting finish. The calculations will be so made that immediately on the conclusion of the race the winners in the various classes will be declared. The trial will start from London and proceed to Glasgow, when the Scottish trial will at once begin, and at the conclusion of the Scottish trial the cars will continue their 2,000-mile journey. Entries can be made for the whole 2,000-mile trial or for the Scottish trial only, or for both. The distance run in Scotland will be roughly about 750 miles, and on the arrival of the cars at Glasgow the whole of the cars will be under the management of the Scottish A. C. until the conclusion of the Scottish trial, when the

Royal A. C. will again take over the direction of affairs. The Scottish trial will be run on the same lines as heretofore, and its distinctive character will be therefore preserved. There will be ten classes in the 2,000-mile trial, based on R. A. C. rating, while in the Scottish trial the basis of classification will be price, as has been the case in former years.

Nothing much has been heard of the kaiserpreis for 1908, but it is presumed that as Germany was so successful last year, when the event attracted ninety-six entries, necessitating two trial heats, the race for the emperor's cup will be continued this year, probably in early June and preceding the French grand prix.

The third annual grand prix probably will be run over the Dieppe course, which was used last year when Nazzaro in a Fiat was evolved the winner. The race will take place some time in the first fortnight in July and the distance called for is from 435 to 495 miles. The entries at ordinary fees close on February 15 next at 6 p. m. and at double fees on June 1. The entry fee is 5,000 francs for one car, 9,000 francs for two cars, and 12,000 francs for three cars. The race will be run under the formula adopted at the congress of automobile clubs at Ostend, under which all competing vehicles must have a motor comprising four cylinders with a bore not exceeding 155 millimeters or 6 1/8 inches or the equivalent in useful surface in any other number of cylinders, and the weight of the car, including the oil in the motor and in the gearbox and back axle, must not be less than 1,100 kilos.

Germany's effort in the touring line will be centered on the Prince Henry cup competition which replaces the famous Herkomer, which was allowed to die a peaceful death after last year's run. The new contest will be open to all, no attempt having been made to draw the amateur line, although this was at first proposed. Freak cars will be barred and each contestant must qualify by first covering 2,000 kilometers under certain conditions. The start of the tour will be made June 9 from Berlin, running through Danzig, Stettin and Kiel to Hamburg, where a speed trial will be held. From Hamburg the tour goes by way of Dusseldorf to Frankfurt. Classification will be made according to weight and cylinder dimensions.

Just what will be done regarding the 1908 Glidden is uncertain, for Chairman Hower and the A. A. A. touring board have not as yet given out anything for publication. Chicago already is in the field for the start of the run.

Outside of the fact that it has been determined to run the Vanderbilt this year, nothing has been announced. It is believed, however, that the Long Island motor parkway will be completed in time for the contest, which would permit of the classic being run over that course.

UNIQUE TEST IN PARIS

Expert French Mechanics Take Part in Competition To Discover Engine Troubles

Paris, Dec. 28—In these days when promoters of motoring events are looking for novelties it might not be out of place for Americans to imitate the French and try the latest idea—a breakdown competition such as was held recently in the French metropolis. In other words, it was a contest in which a man's ability to discover what was the matter with a queered machine came into play. The affair, which was held in a large garage at Clichy, attracted thirty-two entries, all mechanics. Seven motor cabs of exactly the same construction were selected, each being placed in a curtained stall from which was excluded all but the man on the job and the officials. Before the mechanic was admitted to the enclosure the officials tampered with the motor and the object was to discover how it had been queered. The competitors were admitted one at a time and the watch snapped as each one started looking for the engine trouble.

The first test was a short-circuiting of the magneto by means of the introduction of a pellet of lead paper. Paul Miltgen located this in 1 minute 28 seconds, while two others found the trouble inside of 4 minutes. Only five of the ten could trace the trouble inside the 25 minutes allotted. The

next stunt was the partial blocking of the induction pipe, which proved a puzzler. Only one man, Roumagere, was successful in this and he took 11 minutes for the job. The carbureter jet next was blocked up and Bonnet was the one to do the quickest work, getting the engine running in 4 minutes 45 seconds. Lallement discovered in 1 minute 23 seconds that the float needle valve was sticking and this won him this event.

These, however, were all preliminaries, for after this had been done the four winners were brought together in a final which consisted of a derangement of the magneto. Miltgen evidently is well posted on the magneto, for it will be remembered he was best in the first stunt in which the magneto was queered. He again made good in the final by restoring the device to its usual condition in 11 minutes 18 seconds by the watch.

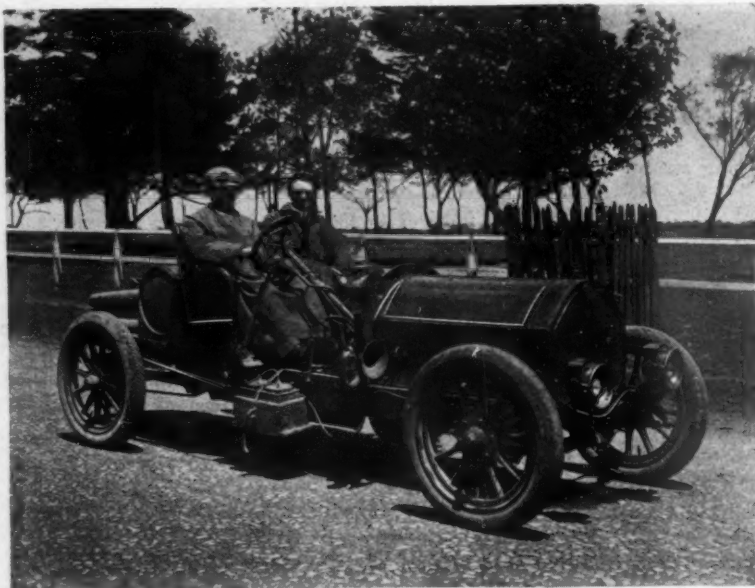
Miltgen, however, was up against it in the next test. Clever at locating mechanical troubles and adjusting them, he was handicapped by a bad arm when it came

to tires. In this Bonnet, who was second in the general classification, proved quickest, removing the tire, repairing it and putting it on again in 9 minutes 46 seconds. Bonnet was remarkably speedy in this work, but it was noted that many of the other contestants showed they were well versed in tire repairing, more so, in fact, than they were in engine adjustment.

The excitable Parisians, always interested in anything of a novel nature, are enthusiastic over this new sort of a competition and there will be more of them.

DEATH OF M. L. GOSS

Cleveland, O., Jan. 7—M. L. Goss, secretary and sales manager of the Baker Motor Vehicle Co. of Cleveland, died last Friday at his home in this city as the result of an accident which occurred about a week before. While driving home from the



STEVENS AND JAMES IN AUSTRALIAN RECORD-BREAKING DARRACQ

Baker factory Mr. Goss had his hat blown from his head. He got out of his car and after allowing a couple of street cars to pass him he started towards his machine head down and holding his hat, when he was struck by a large motor car. Mr. Goss did not appear to be seriously injured and walked to his car and rode home. Alarming complications did not appear until Thursday and he died the following day as the result of internal injuries. Mr. Goss had been secretary of the Baker Motor Vehicle Co. since its organization. He was in his fifty-ninth year and had lived in Cleveland most of the time since 1871, when he started with the Howe Sewing Machine Co. In 1879 he went with the White Sewing Machine Co. and later became its secretary, holding that position until 1893. For several years after that he was sales and advertising manager for H. A. Lozier & Co., makers of Cleveland bicycles. In 1897 he went with the Keating Wheel Co. at Middletown, Conn., returning to Cleveland in 1901 to go with the Baker company.

DARING DRIVE IN FOG

Australians Risk Lives To Smash the World's 24-Hour Road Record in Darracq

Melbourne, Nov. 26—A new world's road record was created November 20 and 21 over Victorian roads, when a 40-horsepower Dunlop-shod Darracq, driven by H. L. Stevens and H. B. James, did 777 miles, an average of 32 miles to the hour, and finished with 7 minutes' unused time. Camperdown was the headquarters for the run, the routes radiating in different directions between Hamilton, Skipton and Winchelsea. The start was made at night in order that the most trying part of the trip would be tackled while the drivers were fresh and the enthusiasm ran high. The schedule called for 740 miles, but James and Stevens gained 37 miles on this.

The start was made at 5 p. m., and it was figured there would be moonlight, but the early promise of an unfavorable night soon began to make itself manifest, for a dense heavy fog began to settle down over the country, at times completely obscuring moon and landscape. Hoping that the heavy mantle of mist would soon be left behind the car at frightful risk was kept moving as fast as the track could be picked up, dropping to a crawl at times as the thicker banks of fog were run into, and then speeding up to 35 miles an hour as open patches came into view. After a most

trying drive, especially to the eyes as goggles were out of the question owing to the heavy mist, Hamilton was again reached at 1:25 a. m. Thursday. The record-breaking party dashed away into the mist again at 1:35, after a delay of 10 minutes. Bad as was the trip up, it was nothing to what was in store on the way back. As the car began to leave Hamilton behind, the fog grew intensely thick, the road was blotted out, fences disappeared, and the only guide for the man at the wheel was some 20 or 30 feet of road, which seemed to rush up out of the fog into the dull glow of the two powerful acetylene head lamps. Under ordinary conditions the lamps would depict a stone or gutter on the road 75 yards distant; now they would only throw two ghostly big rings on the bank of fog a few feet distant from the car.

On a circuitous course the strain was intense, and it was only a perfect knowledge of the lay of the winding road that rendered progress possible, to say nothing of the terrific risks taken. For all the

world it was at times like driving through a tunnel of smoke. Wet through, eyes lacerated and burning with the fog which trickled down one's face, and the intense nerve strain made the drive one that will never be forgotten by the trio who took on that deadly fog trip. Despite the fact that the country was blotted out, the speed had to be maintained, and at times the car shot right off the road at sharp turns, and it was only by the application of powerful brakes that smash-ups were on many occasions almost miraculously averted. At one point near Mortlake, where the road forks, the car dashed straight on in the fog, and pulled up on a common. It was only good fortune that there was no fence in the way. But that was only one of many hair-breadth escapes. After a nerve-racking drive, Camperdown was again reached at 4:41, the average speed through the sea of fog being 26½ miles an hour for the Darracq.

What such a drive meant only those on board the car know, and one such experience in a lifetime should be sufficient. On the run down the 32 minutes gained earlier in the run and another 31 minutes with it were lost. Nine minutes were lost here before the road through Darlington and Lismore to Camperdown was taken.

In daytime it was easier traveling and the record of 606 miles was reached before noon, leaving over 5 hours to the good in which to better the world's previous best figures for the day's run. At 3:20 p. m. the Darracq, with Stevens at the wheel, left on its last run for Winchelsea, via the Stony Rises and Colac, and, running along in great style, the 52 miles were negotiated in 1 hour 33 minutes, including a block at the Weerite railway crossing for 5 minutes. With 7 minutes to spare, the time sheet was finally signed at the Winchelsea postoffice at 4:53, the total score being 777 miles for the 24 hours.

In the last 12 hours, or, to be exact, 11 hours 57 minutes, the remarkable distance of 422 miles was covered. The total stoppage en route aggregated 2 hours 20 minutes, which, plus 7 minutes to spare at the end of run, brings the driving time down to 21 hours 33 minutes, equal to an average of 36 miles an hour for the full time spent on the road. The fastest mile clocked on the run was 53½ seconds, equal to about 67 miles an hour, and this was accomplished after the car had been running nearly 22 hours. During the trip, including another 75 miles back the same day to Melbourne—making in all 845 miles—61 gallons of gasoline were consumed, equal to 14 miles to the gallon.

VOTE FOR LATE SHOWS

Next Year's Licensed Exhibition Fixed for January—Chicago Show for February

New York, Jan. 8—Special telegram—The next A. L. A. M. show is to be held in Madison Square garden in January and the next Chicago show in February. So far as the official announcement given out by its press agent is concerned, the most important action taken by the board of managers of the Association of Licensed Automobile Manufacturers at its meeting yesterday was a decision to return to a January date for the next Madison Square garden show. Colonel Clifton and General Manager Budlong declared positively to the Motor Age correspondent

rumored there was to be a fight for the reduction of the present license fee. If there was, the officials interviewed refused to confirm the report, much less acknowledge that anything was done in the matter. As a matter of fact the most that could be obtained from them was the intimation that all the Franklin demands had been fought out and defeated in the caucus meeting.

The report of Colonel George Pope, chairman of the show committee, indicated that the recent show in the garden was the most satisfactory from the show standpoint that the association has ever held. The time for holding shows was freely discussed and whether early or late shows were the better given a thorough investigation. Colonel Pope, who has been the chairman of the show committee since the association held its first show, pointed out

very clearly the advantages of a late show. The board, acting upon Colonel Pope's suggestion, voted that the next show be held in January. The action taken by the Seldenites will mean without doubt an early independent show at the palace. General Manager Reeves, off hand, says he thinks December the proper time. It has been suggested, however, that an early January show would not imperil autumn selling and at the same time bring agents and parts makers to New York within a single fortnight.

Chicago's next show will be held during the first week in February; in a word, at an interval of a fortnight following the



SEVENTH BELGIAN SHOW—REO AND FORD STANDS IN FOREGROUND

that the meeting had been harmonious and that the general business discussion had developed no abnormal friction. It would seem that all contentious questions had been threshed out and disposed of at the preliminary caucus called by H. H. Franklin. It is hinted that the prime mover of the caucus did not succeed in finding sufficient backing to bring his complaints before the general meeting with much hope of action, though it would appear that the Franklin spokesman had not been altogether silent before the board. Mr. Franklin's chief fight was for an open shop in the matter of cars being handled by other than licensed dealers. In this he is said not to have been successful, and it is insisted that the present restrictive selling policy will be continued. The cutting down of running expenses inaugurated under the Budlong regime will be continued. The digest has been discontinued and Marcus I. Brock and C. A. Wardle will shortly find themselves outside the breastworks.

The outcome of yesterday's meeting was watched closely all day. It had been

licensed exhibition in January. This was the most important action taken by the N. A. A. M. executive committee at its meeting today. General Manager Miles reported the last Coliseum exhibition to have been the most successful in attendance and financial results in the history of the association. N. E. Coffin, representing the E. R. Thomas Detroit Co., has the honor of being the first man elected to membership. The association contemplates establishing a comprehensive traffic department. Those present were Messrs. Henderson, Kittridge, Innis, Chapin, White, Hildebrand, Davis, Pope and Clifton.

KING VISITS A SHOW

Brussels, Dec. 22—The seventh annual Belgian show opened yesterday in this city and as usual an elaborate display of motor cars and accessories is being made. The feature of the opening was the appearance on the scene of King Leopold, who created a sensation by driving through the hall in his motor car, utilizing the broad aisles for highways for his investigating trip.

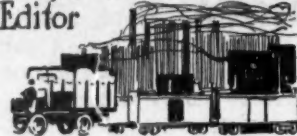
The Western News Company of Chicago
and Its Branches Supply Newsdealers
N.H. Van Sicklen, Manager



MOTOR AGE

1200 Michigan Avenue, Chicago
Published Every Thursday by the Trade Press Company
Entered at the Chicago Postoffice as Second-Class Matter
New York Office 29 West Forty-Second Street

Subscription Two Dollars a Year, Foreign and
Canadian Subscription Four Dollars
Charles P. Root, Editor



ANOTHER ATTACK OF ACUTE MOTORPHOBIA



HAT must the world of commerce think of this country when it learns through the medium of the Chicago Tribune that in the year 1907 motor cars were produced by American makers to the tune of only \$4,900,000 and that the figures for the previous year were identical to those of the year 1907? Naturally enough the reader must have some strange thoughts over the figures presented—that the banner year, according to the best authorities, should show no greater returns than the preceding one. Those who are at all familiar with the extent of the trade in motor cars in this country must naturally hesitate to accept daily newspapers as authorities. The Tribune is regarded as an authority in the matter of presenting reliable news to its readers and it is because of this reputation that such figures as it presented in its annual review of the wholesale trade of the country make it appear to be loaded with ignorance or prejudice, either of which is bad enough to condemn it as a disseminator of reliable news.

The Tribune makes it appear in plain figures that the "value of wholesale trade of the year" so far as motor cars is concerned is represented by \$4,900,000, for each 1906 and 1907, whereas the carriage trade increased from \$10,500,000 to \$12,600,000. It is common knowledge that the factories of Detroit alone produced motor cars in 1907 to the number of 23,000, which if sold at an average of only \$1,000 would be \$23,000,000. As a matter of fact it is more than reasonable to believe the average was \$2,000. The Packard factory turned out 1,127 cars at an average retail price of about \$4,500 or considerably over the \$5,000,000 mark. The Ford company claims its output was represented in money by \$7,000,000—then think of the Cadillac, Pierce, Thomas, Peerless, Rambler, Mitchell, Winton, Stearns, Haynes, Maxwell, Pope, Elmore, Apperson, Studebaker and hundreds of others whose outputs were anywhere from a hundred to five times that number!

Alfred Reeves, general manager of the American Motor Car Manufacturers' Association, is authority for the following statement regarding the business for the year that has just commenced—and it is a conservative statement, according to the best information that can be gathered:

Much of the figuring regarding this year's production of cars of our members has undergone some changes. Probably the motor car builders in this association will, on an average, reduce their proposed output at least 30 or 40

per cent. On the original figuring made prior to our show a tabulated statement indicated that our members would make about 37,100 cars, at a total selling value of \$55,375,000. We believe these figures were conservative.

Now turn to the matter of exports and see how correct is the statement of the Tribune. These figures are as accessible to the Tribune as they are to any other publication; they happen to be from a recent issue of Motor Age:

During the 10 months ended October last, 2,622 cars were exported at a total value of \$4,718,676, together with parts valued at \$563,277. The enormous increase that has taken place in this trade is indicated by the fact that during the corresponding period of last year the combined exports of cars and parts were valued at only \$2,356,110. In other words, the exports of motor cars during the first 10 months of this year were more than double those of the same period of 1906, and the indications are that the exports for the entire year will go considerably beyond the \$5,000,000 mark.

The Tribune has not, by the way, warded off its spring attack of motorphobia—only the attack came a little early this season, but conveniently after the motor car show, when the chances for obtaining advertising patronage seemed somewhat slender. It tells of an accident to a car through the bursting of the tire on a front wheel, and then—

The big car was careening towards a tree when Donald Dixon, an 18-year-old boy, who

lives at 300 Wesley avenue, grabbed the disabled wheel and succeeded in swerving the machine away from the obstruction. The vehicle was upset, but the occupants escaped with slight injuries.

How brave of Donald! Further on—

The car was driven by the owner, George Royal, 229 Wesley avenue, Oak Park. In the vehicle with him were two Oak Park high school pupils, a military school student, and an actress, the two latter on their way to take trains from the city. The actress, Miss Noda Dean, had been spending the holidays in the suburb. Her left wrist was sprained, but later she took a train for Milwaukee, being escorted to Chicago by Wallace Thompson, 221 Wesley avenue, one of the high school students. Herbert McClary, 126 Home avenue, on his way to the Kentucky military academy, turned an ankle in jumping from the machine. The other occupant of the tonneau, Miss Brownie Tucker, 309 Euclid avenue, a high school student, was uninjured.

It was important that it should be known that those occupying the car were two high school students, a military school student and, above all, an actress; there is something interesting in the fact that the actress was spending the holidays in the suburbs—actresses seldom get into the suburbs—that her poor little wrist was sprained and that she took a train and was escorted thereto by Wallace Thompson, of 221 Wesley avenue. The public wanted to know where Mr. Thompson lived, above all other things. Motor Age is pleased to know, however, that Brownie Tucker was uninjured.

RELIABILITY CONTESTS OF THE FUTURE



PROMOTERS of reliability contests find that the makers who support such affairs are not satisfied with simply making perfect scores for the purpose of advertising their wares—reliability contests are not for any such purpose, except in an incidental way. It has been shown that the makers desire these contests sufficiently severe to bring out the defects in their goods and to serve as lessons from which knowledge may be gained, with the goal the point of perfection. The first really strenuous contest was held in Chicago immediately prior to the opening of the Chicago show; it caused some criticism and some feeling. But since the result of that event was heralded throughout the motor world it has become the standard for such contests and other promoters—and other contestants, too—have come to the conclusion that it is necessary to have a thorough test if any test. As a result the last event, that at Philadelphia last week, was framed somewhat after the Chicago affairs so far as pertained to completeness. Ordinary contests will not in the future satisfy either the public or the maker. The motor car

purchaser of today is not the numbskull some people would have him appear—he is a discriminating purchaser and wants to know, more than ever, the insides of the car he is to own. The exacting rules laid down by the foreigners for the many contests that have been held abroad have been largely responsible for bringing the French and English cars to their present state of perfection. This country in the past has been lacking in this respect, notwithstanding the criticism of seekers of advertising to the effect that the promoters are attempting to kill the goose that laid the golden egg. Furthermore, the makers have been the first to appreciate all this and to thoroughly endorse the severe contest rather than the one in which a half hundred cars could go through with perfect scores. Motor Age has before pointed out the fact that the severe road test and critical technical examination afterward were necessary in order that the really good car could show its superiority to its poorer competitor and that it showed to the careless assembler the folly of putting on the market something which an exacting public does not want and will not have, no matter what the price.



CURRENT COMMENT



CHICAGO, Jan. 3—Dan Cupid is a clever chauffeur, but not always is he skilful enough to drive the happy couple through the gates of matrimony without getting them into some sort of trouble. He may be able to make perfect scores in reliability runs, and after his boss is married he is expected to shine in economy contests, but when it comes to getting away from the bridal party after the ceremony Daniel cannot always deliver the goods. This was proven New Year's night, when George Wesley Chuckhohn, of Le Mars, Ia., owner of a motor car, was married here in Chicago to Miss Katherine Swanzey, daughter of H. A. Swanzey. The

THE WEEK IN BRIEF



H. K. Sheridan's White steamer wins class A cup in New Year's reliability run of Quaker City Motor Club; run-off is necessary, White, Studebaker and Peerless having been declared perfect in original contest; Packard and Maxwell win other two classes; fifty cars compete.

Touring will receive greater attention from Automobile Club of America than ever before, club having determined to broaden scope of committee and to list all good hotels and garages.

Joseph M. Schwab, of New York, secures option on Pope-Toledo plant; valuation of \$800,000 is placed on factory and all cash is demanded by receivers.

Details of daring drive for world's 24-hour record received from Australia; Darracq does 777 miles and drivers risk lives in heavy fog.

Automobile Club of America adds stock chassis race to Ormond program and announces complete card for big beach meet.

M. L. Goss, of Baker Motor Vehicle Co., dies in Cleveland as result of accident.

CUPID'S MOTOR PRANK

bridegroom, with Dan Cupid at the wheel, had driven right into the heart of Miss Swanzey, who could not resist the motor car. So when the wedding date was set it also was planned that the day following the ceremony the newly-wedded pair should start in the car for the Iowa home despite the fact it was the heart of winter. So far so good. The ceremony took place according to schedule at the Swanzey home in Englewood, and Chuckhohn prepared for the warm reception which generally is given by the friends of both parties. He waited the rest of the evening, but to his surprise no one gave any evidences of brainstorm or rough house and the Iowan began congratulating himself that he had friends who were friends. He tipped this off to the bride, and together they made their preparations for the getaway, which was to be strictly up to date. The car awaited at the door, and the new benedict and benedictine passed through the door and down the steps, followed by the usual rice and one or two old shoes. Even such nice guests could not resist this, and the Chuckhohns did not object. But still all this tameness frightened the Iowan. It was like a calm before a storm, and it was not until he had gotten a mile away from the house that he breathed easier. The motor was purring like a contented cat and hitting on every cylinder, there was a pleasant hum to the gears and everything seemed lovely until just as they swung from Fifty-fifth street into Michigan avenue, when a form loomed up ahead and an official voice called a halt. It was a cop sure enough, and the Iowan did not dare defy the majesty of the law. He threw out his clutch and threw on his brakes and the copper hopped on the running board with the information that the speed laws had been violated. There was nothing to it but a trip to the police station, and there the whole party went. Of course, it was an offense that permitted of a bond being given and the kind desk sergeant allowed the couple to remain in the office while a telephone chase for Father Swanzey was started. Before he could be located, though, who should happen in but one of the bridal party. Coincident, that's all, thought the groom. Then another friend blew in, which made two coincidences. After that they came in bunches, did those coincidences, until all the bridal party had appeared. Before this the groom had tumbled to the scheme and acknowledged the corn. The police did too, and as soon as everyone had laughed his or her fill the bridal couple made a



fresh start, though this time they did not have all clear sailing. Those friends did not dare risk any more arrests for violations of the speed ordinance, so they insisted on accompanying the Chuckhohns to the Lexington hotel, where the latter intended passing the night. In order to frighten away the naughty bluecoats a brass band was secured and placed at the head of the procession. Then came the motor car carrying the bridal couple and in the rear followed the friends who were there to prevent any escape. The Chuckhohns were game, though, and marched down to the Lexington hotel at Twenty-second street, where the party dispersed.

COMING MOTOR EVENTS



Hartford Show—Annual exhibition of Automobile Dealers' Association of Hartford, Conn., in Foot Guard armory, January 14-18.

Italian Show—Exhibition in Turin, Italy, January 18-February 2.

Detroit's Armory Show—Seventh annual show of Tri-State Automobile and Sporting Goods Association in Light Guard armory, February 10 to 15, inclusive.

Ormond Meet—Under auspices of Automobile Club of America, March 2-9.

Boston Show—Annual Boston show, from March 7 to 14, in Mechanics hall. Chester I. Campbell, manager.

Buffalo Show—Sixth annual show of Automobile Club of Buffalo, from March 9 to 14. Dal H. Lewis, 760 Main street, Buffalo, manager.

Savannah Races—Savannah Automobile Club's road races, Savannah, Ga., March 15.

Pittsburg Show—Automobile Dealers' Association of Pittsburg show in Duquesne garden, April 4-11.

ADDS STOCK CAR RACE

A. C. A. Puts Chassis Contest on Ormond Card — Completed Program Announced

New York, Jan. 4—That the Florida meet is to be an out-and-out tournament for legitimate long-distance racing and stock cars is the outcome of the issuance of the entry blanks and final preparation of events this week by the Automobile Club of America, which will manage for the Florida East Coast Automobile Association the annual series of races on the Ormond-Daytona beach during the week of March 2-7.

In answer to the demands of makers and the criticisms of followers of the racing game, the Automobile Club of America has added a long-distance race for stock chassis and has practically barred out all mere sprinting freaks by raising the speed average necessary for qualification for the Sir Thomas Dewar mile, the 2-mile-a-minute, and the kilometer record trials.

A stock chassis race of 160 miles of five laps of 32 miles each has been added to the program. This addition to the card is to be welcomed, as it practically establishes a stock car circuit of much-desired early spring races, starting with Ormond during the week of March 2, continuing at Savannah and winding up with the Westchester race on April 24. This circuit will be an additional inducement for the entry of stock cars. In the first place, a single preparation of a car will serve for all three races. Then again a circuit will give a maker three instead of but one chance to make good with his car.

The card of the meet calls for but seven races to be run between March 2 and 7. Three of these are sprinting events, so that the tournament practically consists of four long-distance races. The program in full as announced follows:

No. 1—288 miles, nine laps of 32 miles, standing start, for the Automobile Club of America cup. Entrance fee, \$200.

No. 2—128 miles, four laps, standing start, invitation race for gentlemen amateur drivers, for a silver cup. Cars to be eligible must have been owned by the entrant prior to the time of the public announcement of the race. Entrance fee, \$100.

No. 3—100 miles, standing start, for the Minneapolis International world championship trophy. Present holder, S. F. Edge, London, England. The cup must be won twice to obtain permanent possession. Entrance fee, \$50.

No. 4—160 miles, five laps, for stock chassis. A stock chassis shall mean that the maker of the same shall have actually manufactured and delivered, or have ready for immediate delivery, at least ten similar chassis in each and every respect, on or before February 15, 1908. The type of the body is left to the choice of the entrant, provided it has seats for at least two and carries at least two, driver and mechanic. Any American or foreign stock chassis is eligible, providing its total piston area shall not exceed 103.87 square inches, which will admit the equivalent of a four-cylinder engine having a bore of 5 1/4 inches. Silver cups to contestants finishing first and second. Entrance fee, \$100.

No. 5—One mile, flying start, for the Sir Thomas Dewar world's championship trophy. Present holder is Fred Marrott, of Newton, Mass. Not more than four cars will run in a

heat. A second round of heats will be run if necessary. The winner of each heat, or second round of heats, as the case may be, and the fastest second car to compete in the final. The entrance fee for this event, as fixed by the deed of gift, is \$50, which is deposited in a fund in the hands of the trustees of the trophy for special road construction.

No. 6—Two miles, flying start, for the 2-mile-a-minute trophy, to be run in the form of time trials. The winner must equal or exceed a speed of 120 miles an hour. Entrance fee, \$50.

No. 7—Record speed trials for mile and kilometer. Entrance fee, \$25.

The Vanderbilt cup race conditions will govern all races except the stock car chassis contest.

A car to be eligible for the three sprint events last named on the program must compete in the 288-mile, the 100-mile or the 160-mile race and cover a distance of 100 miles at an average rate of 60 miles per hour. This raises the rate 10 miles.

ENGINEERS CHOOSE OFFICERS

New York, Jan. 5—The third annual meeting of the Society of Automobile Engineers was held at the New Grand hotel on Friday afternoon and evening last. The afternoon session was opened by President A. L. Riker, and the annual election was held. Thomas J. Fay, New York, was chosen as president; E. T. Birdsall, Rochester, N. Y., second vice-president, succeeding John Wilkinson; Henry Hess, Philadelphia, treasurer, succeeding Mr. Birdsall, formerly secretary-treasurer; F. J. Newman, Chicago, and Russell Huff, Detroit, managers for 3 years, vice H. Vanderbeek and A. H. Whiting, whose terms expired. The other officers of the society are: Henry Ford, Detroit, first vice president, and L. T. Gibbs, H. M. Swetland, H. P. Maxim and W. H. Alden, managers. President Fay appointed Charles B. Hayward secretary. After the election the followers papers were read and discussed: "Automobile Hub Bearings," by Henry Hess; "Some Notes on Taper Roller Bearings," by H. W. Alden; "Usually Unobserved Refinements of Automobile Construction," by J. M. Magee and Thomas J. Fay, and "Nature-Hard Gears," by Thomas J. Fay. The annual dinner of the society was held in the evening at the New Grand, followed by a second session of the business meeting. It was decided to hold quarterly meetings in future, the next one taking place at Boston during the week of the show there.

GOTHAM'S OPENING WEEK

New York, Jan. 7—General John T. Cutting, of the Oldsmobile Co. of New York, has been agitating for several days the holding of a trade carnival week early in April, at which the dealers shall keep open house, decorate their places, serve luncheon and provide various entertainments. An automobile ball, vaudeville, smokers and a parade have been suggested. The dealers are enthusiastic over the scheme and will meet tomorrow afternoon for discussion and action. It is proposed that the New York Automobile Trade Association manage the affair.

BIDS FOR BIG PLANT

Joseph M. Schwab, of New York, Given Option on Pope-Toledo Property—Cash Wanted

Toledo, O., Jan. 4—At a conference held with the creditors of the Pope Motor Car Co. yesterday Receivers A. L. Pope and George Yule decided to give an option on the Pope-Toledo plant in this city to Joseph M. Schwab, of New York. This is the same deal which has been brewing for some time, and the option is the second one which Mr. Schwab has held on the local plant, the first being permitted to expire without action because of the temporary financial flurry and the consequent difficulty in financing the project. The exact terms of the option were not disclosed, but the consideration is said to be about \$800,000 in cash.

"We have placed a value of \$800,000 on the plant, and that sum in cash will buy it," said Receiver George Yule yesterday after the close of the conference. Originally Mr. Schwab made it incumbent upon the citizens of Toledo to raise in the neighborhood of \$150,000 to assist him in financing the purchase, and, although the receivers would not discuss that phase of the question yesterday after the conference, it is understood Mr. Schwab still adheres to that view, and will demand that local investors be interested to that extent before he will finally close the deal.

It is thought there will be no difficulty in raising the amount among the citizens of Toledo, and it is said a large portion of it already is pledged, and that the work of raising the balance will be taken up in earnest as soon as the option is signed up. Indeed, but for the tightening of the money situation the sum would all have been raised and the deal closed 2 months ago, it is stated.

While the giving of the option is not looked upon as the completion of the sale of the plant, it is considered an important step in the consummation of the deal. A few weeks ago Mr. Schwab made a visit to this city, and gave the property a close personal inspection, being much and favorably impressed with the possibilities of the enterprise. But whether the transaction is carried to a successful conclusion or not, the Pope-Toledo plant will be operated just the same.

"The plant will go ahead as at present, regardless of the outcome of these negotiations. As the season advances and business warrants it, we will put more men to work, and we will probably be running normal as soon as general conditions are restored to their normal stage," said Receiver Yule.

Prior to the conference an inspection was made by the receivers and others, including Thomas B. Jeffery, head of the Rambler company, who came from his home at Kenosha, Wis., to give his opinion

for the benefit of the receivers as to the value of the Pope-Toledo plant. Others who were present and took part in the conference were Rathbun Fuller and Henry Thompson, of the Toledo chamber of commerce; S. D. Carr, of the National Bank of Commerce; I. F. Knisely, of the Northern National bank, and a number of attorneys.

Reports were published in the local papers at the time of the meeting to the effect that Mr. Jeffery was here to induce A. E. Schaaf to go to the Rambler factory. Mr. Schaaf denies the rumors.

MONTH'S EXPORTS DECLINE

Washington, D. C., Jan. 4—There was quite a drop in the exports of American motor cars during November as compared with the exports of the corresponding month of 1906, the returns showing ninety-nine cars, valued at \$142,946, exported during November last, as against 173 cars, valued at \$230,491, shipped abroad during the eleventh month of 1906. During these periods the exports of motor car parts declined in value from \$45,268 in November, 1906, to \$30,606 in November last. During the 11 months of last year, however, the exports of cars showed a tremendous increase over the corresponding period of 1906, the figures being 2,721 cars, valued at \$4,861,622, exported during the former period, as compared with 1,030 cars, valued at \$1,610,426, shipped abroad during the 11 months of 1906. The exports of parts likewise increased from \$200,496 during the 11 months of 1906 to \$593,918 during the same period of last year. The detailed shipments of cars and parts during November last were as follows: United Kingdom, \$49,419; France, \$26,304; Germany, \$6,136; Italy, \$315; other European countries, \$4,616; British North America, \$20,585; Mexico, \$15,662; West Indies and Bermuda, \$13,633; South America, \$12,014; British East Indies, \$6,606; British Australasia, \$4,439; other Asia and Oceania, \$13,648; Africa, \$109; other countries, \$66. During November last 125 cars, valued at \$316,767, and parts to the value of \$28,303, were imported into the United States, while during the same month of 1906 the number of cars was 126, while the value was \$418,035, and the value of the parts \$28,320.

GOING TO ORMOND

Cleveland, O., Jan. 6—The Cleveland Grays, the crack military organization of the Forest City, are preparing for a trip to Florida and Havana and have just announced a change in their itinerary to make a 2 days stop at Daytona to witness the motor speed contests to be held there the first week in March. Major A. B. Foster, a member of the organization, whose winter home is in Daytona, is president of the Florida East Coast Automobile Association, which has a large club house on the beach. The Grays will witness the contest from that point. A number of Cleveland motorists have arranged to accompany the Grays.

HAS NEW TOUR SCHEME

A. C. A. Broadens Scope of Its Committee, and Will List All Good Hotels and Garages

New York, Jan. 5—The Automobile Club of America is about to broaden widely the scope of activity of its bureau of tours, which during the past season has erected some 1,400 direction and danger signals, and issued numerous route cards and maps for the benefit of tourists. In a circular just issued to the club members the bureau sets forth its new scheme for the coming season in part as follows:

"It is now proposed to issue a list of recommendable hotels and garages on touring routes. Any hotel or garage which has first-class accommodations and where the treatment accorded the traveling motorist justifies it may, after its application is favorably passed upon by a special committee, receive an official appointment of the club, which appointment entitles the holder to display a specially designed sign furnished by the club and which bears the club name and emblem. An annual fee, graded by the room capacity of the appointee, will be charged.

"In adopting this plan of officially approving of hotels and garages it is felt that those who avail themselves of this privilege would not only directly benefit in obtaining the patronage of the members of the club and the touring public at large, but would indirectly by thus contributing to the expense of the bureau of tours advance the interests of the touring public. It can be well understood that it costs a large sum of money to maintain an organization such as there is in this club and that the issuing of route cards, maps, bulletins and official books, which, of course, contain the names of the officially approved garages and hotels, the placing of signposts and danger signs, etc., require a large amount of work at considerable expense. The development of touring routes and the information necessary for the cards and maps places upon the club every year a large increase of expense and it is felt that in this development those who are interested in extending the sphere would be glad to contribute.

"It must also be understood that this plan was not formulated with the idea of providing a profit for the Automobile Club of America, for the club will continue, as it has in the past, to provide liberally for the bureau of tours. It can hardly be expected, however, that the club, however rich and powerful it may be, will be willing to spend a sum which is estimated to be from \$25,000 to \$40,000 a year unless it has the support of those who are interested in the development of runs and tours.

"The club feels it is benefitting every good hotel and garage by only issuing its official approval and permission to exhibit its sign to those who are worthy of such

privilege and will maintain a standard of excellence which will be satisfactory to the touring public.

"The bureau of tours of the club intends to extend its activities in various directions this year, each step being taken for the purpose of facilitating and making touring more attractive. It will be prepared to help a motorist plan his tours, to advise him of the condition of the roads, the scenery and character of the country on various routes and the hotel, garage and repair shop accommodations to be had. This should prove a veritable boon to car owners, as at the present time such route books as exist generally fail to particularize on these items. The route card service and special map work of the club will be much extended, also its signpost work. Preparation is being made for the issuance by the bureau of tours of registration and certificates and licenses for such states as do not recognize the licenses of other states."

TRIES NEW DYNAMOMETER

New York, Jan. 7—A demonstration of the Automobile Club of America's newly installed dynamometer was given to the press yesterday afternoon under the supervision of Dr. Schuyler S. Wheeler, chairman of the club's technical committee. The unique machine determines speed in miles per hour and feet per second, drawbar pull or tractive effort, horsepower, grade-climbing ability and the power of the brakes. Two cars were put to test. W. K. Vanderbilt, Jr.'s Mercedes, which scored a mile in 39 seconds on Ormond beach, showed 21 miles an hour on first and 74 on fourth speed, a drawbar pull of 880 pounds on first and 160 on fourth speed, a horsepower on the driving wheels of 50 on first and 44 on fourth, and 35 per cent equivalent grade or ratio of pull to weight and 11 per cent on fourth speed. A Pope-Hartford belonging to the club was also put to the test. It showed 15 miles per hour on first, 25 on second and 36 on third speed; a drawbar pull of 510 pounds on first, 340 on second and 270 on third; a horsepower of 20 on first, 22 on second and 25 on third; and a grade equivalent of 20 per cent on first, 14 on second and 11 on third.

A. A. A. TO LOSE BIG CLUB

Boston, Mass., Jan. 6—One of the surprises of the new year in New England was the announcement made by the directors of the Massachusetts A. C. of Boston that the club had decided to withdraw from the A. A. A. This club was the first to be formed in Boston; in fact, the first big club in New England, and it has done a great deal for motoring. It has furnished a president, vice president and other minor officers to the A. A. A. in years past. The club was the first in Boston to hold race meets and hill-climbs, and its members did a good deal in the way of looking after legislation.



THE READERS' CLEARING HOUSE



TYPES OF RADIATORS

Norristown, Pa.—Editor Motor Age—Will you kindly tell me which is the best radiator, the tubular or cellular, and why? I have never understood the difference and would very much like to know, as I run my own car.—Mrs. E. P. Gresh.

The tubular radiator is built up of tubes, through which the water flows. In the earlier forms these radiators were placed beneath the front end of the bonnet and the tubes were bent in zigzag fashion from right to left and carried fins or flanges to increase the cooling surface. In certain later forms much the same arrangement is used, but the tubes are located at the front end of the bonnet and are enclosed at the sides and top by an ornamental brass case which conforms to the outline of the bonnet. In still other forms the tubes are vertical, and connect at top and bottom with manifolds. The top manifold receives the water from the engine and distributes it to the upper ends of all the tubes. The bottom manifold receives the water from the tubes and delivers it through a pipe to the pump. The cellular radiator as originally designed was built up from a large number of small square tubes, which were laid together with their ends pointing fore and aft, were soldered together at their ends with narrow strips of brass to separate them, and the whole aggregation was surrounded, bottom, sides and tops, by a case which left open spaces at the top and bottom. In this form of radiator the water flows from the top open space downward between the tubes instead of through them, and the air current, drawn by the fan, passes through the tubes from front to back. This is the form of radiator used on the Mercedes and Fiat cars and some others. It is an expensive form to construct and for this reason has been imitated in a number of cheaper forms, almost all of which have thin flat tubes running vertically and connecting at top and bottom in manifolds. These tubes have very thin edges at front and back and are crimped or corrugated into more or less plausible imitations of the square tube construction. The relative merits of these different constructions will depend largely on the type of car used, and on whether the water available is clean and soft, or muddy or hard. The tubular radiator can generally be cleaned and repaired without much difficulty, especially the type having vertical tubes connecting into manifolds. It carries much more water than the cellular type for the same size of engine, and is heavier as well; and these facts weigh against it for high-powered cars. The Mercedes type of radiator is very light and can be cleaned without much difficulty by an expert repairer, since strips of iron

can be pushed straight down through it from top to bottom when the tubes are taken out of the case. It is, however, very expensive to make, and is liable to start leaks from engine vibration, etc. Almost all of the cheaper forms of radiator constructed in imitation of the Mercedes type are practically impossible to clean on account of the crimping or corrugation of the thin flat tubes, and are also awkward to repair. For this reason they should not be used except with clean soft water and where there is no danger from clogging or freezing.

VALVES MAY STICK

Schuyler, Neb.—Editor Motor Age—I will have to trouble you again, as I am in trouble with an Auburn machine. This machine works very peculiarly—for awhile one cylinder will work fine, then this one will stop firing and the other cylinder will work. The machine works better when the throttle is wide open, but when the throttle is brought down too close the machine begins to fire on one cylinder and then on the other, but both will not work together. Both spark plugs fire good and no trouble has been found with the battery part of the machine.—W. J. Kunkle.

The symptoms described seem to fit an engine having inlet valves with both valves sticking slightly. If the inlet valves are mechanically operated, investigate the timer, which may be loose or worn out or which may be making contact with insufficient pressure.

TIPS FOR TIRE USERS

New York—Editor Motor Age—Tire users frequently ask, "What is being done to reduce the cost of tires to the motorist?" First, see that the car is fitted with tires large enough to carry the load easily. Second, keep your tire well inflated. Do not begrudge a few dollars' initial expense for tires a size larger than the requirements call for on catalog weights of cars; don't save your back at the expense of your pocketbook when you come to inflate your tires. Larger tires and highly-inflated tires are a prime requisite if costs are to be reduced. Remember, there is friction inside the tire itself. Pneumatic tires are made up of several layers of fabric separated and protected by layers of rubber. The fabric necessarily has to be strong. Michelin fabric, new, stands a test of over 300 pounds to the inch. Every time a wheel revolves under its load the tire is forced out of its original form. The layers of comparatively stiff fabric must conform to the new shape. Therefore, motion, and consequently friction, takes place between the plies. A thin layer of rubber between each ply acts as a lubricant, bringing the fabric back to its original position. Work this rubber too much at the high tempera-

ture produced by friction between the plies and it gives way—the tire is speedily a wreck and the maker is blamed for what is in no sense his fault. Keep the tires inflated to a high pressure and you thereby reduce the deforming under the load. Reduce deforming means reduced action between the plies, less friction, less heat and longer life. It is safe to say that the average user shortens the life of his tires 50 per cent by insufficient and careless inflation. Don't be afraid of getting them too hard. A 3-inch Michelin tire, when new, would stand a strain of not less than 800 pounds to the square inch—4½-inch tires will stand 50 per cent more. It is difficult with any means at your disposal to inflate them beyond 100 pounds to the inch. The margin of safety is large. Keep the tire well inflated and you reserve this margin definitely. Drop the pressure to 40, 30 or 20 pounds and you use up more of your tires in a 50-mile run than you would in 500 miles of running under proper conditions.—Michelin Tire Co.

TRAFFIC REGULATIONS

New York—Editor Motor Age—There seems to be something about official life that deprives a man of his common sense. The Anglo-Saxon race prides itself upon being essentially practical, but officials, even at that rate, are prone to assume the definite where only the indefinite exists. The rigid, blind and strictly literal enforcement of our municipal motor car speed law to the disregard and neglect of well-established road laws, instead of accomplishing its intention of rendering our streets safe, has in reality contributed materially to increase their danger. It is a common sight in the rush hours of the morning to see the center of a much-traversed street occupied by three or four coal teams and a couple of milk wagons gently beating up the street from side to side, surrounded by a swarm of motor cars, all operating within the law, playing hide-and-seek around the meandering coal wagons to the imminent risk of all concerned. The confusion of the situation is frequently heightened by some truly reckless motorist who comes around the corner well within the speed law and precipitates himself into the midst of the mass going in the opposite direction. I have seen as many as three such cases in a day in which the escape was so narrow as to attract the startled attention of nearly everybody in sight, and in every case the trouble was primarily due to the non-regulation of teaming traffic and a reckless turning of corners by motorists operating strictly within the law as actually enforced. The authorities seem to occupy the same attitude toward the fetish of a definite speed law as a hypnotized hen to a chalk mark.

I for one have confidence enough in the average judgment and integrity of the members of our police force to leave to the judgment of the observing policemen the question of whether or not any given driver of a motor car or horse is or is not properly regarding the safety of the streets, irrespective of any definite speed limit. The few cases of officiousness on the part of the one or more brainless people that creep into all organizations will represent a very small penalty to pay for the resulting improvement in safety and comfort. The intelligent enforcement of a fundamental driving law coupled with an enforcement against all vehicles of the well-established rules of "keep to the right" and "slow vehicles to the curb" will in comparison with the preposterous conditions now existing seem something like a revolution in the direction of safety. —Hayden Eames.

ALCOHOL AND ITS USE

Chicago, Ill.—Editor Motor Age—Last winter I had a non-freezing solution composed of 2 gallons of glycerine, 2 gallons of alcohol and 5 gallons of water, but from time to time during the winter I poured more alcohol in and now the question is up to what limit can I continue to pour alcohol with perfect safety?—Charles E. Bartley.

There is no objection, so far as safety goes, to substituting alcohol for glycerine altogether. The only possible danger from its use will arise from too rapid evaporation of the alcohol, whose vapors are of course inflammable. The odor from the radiator will be a guide to this.

PISTON RINGS PROBLEM

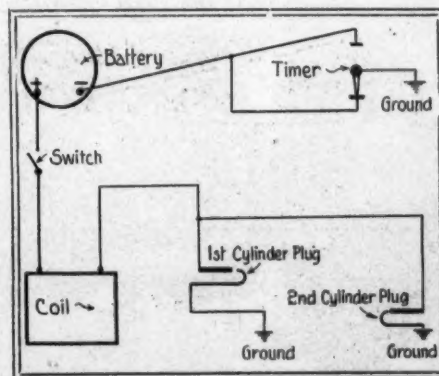
Grand Rapids, Mich.—Editor Motor Age—I am repairing a Ford motor F. The front cylinder loses lots of compression, the exhaust valve needs grinding, but on the compression stroke it sounds as if a lot of gas is leaking past the rings into the crankcase. Does the position of the piston rings make any difference in the compression? The reason I ask this is that the car has been overhauled several times, and the rings may not always have been put in their former positions. The ignition is also bad. Would the enclosed diagrammed system work satisfactorily? The coil is such as is used on stationary gas engines. It has only a primary winding. I will esteem it a favor if you will answer these questions through the Readers' Clearing House.—Donald S. Clute.

The piston rings should be located with their gaps alternately on opposite sides of the piston, so that the gas will have to travel as far as possible before getting past each ring. Each ring groove is supposed to have a locating pin which fits into a notch in the ring to keep the latter from turning. Sometimes these pins work loose and drop out. In assembling a cylinder and piston, great care should be used to see that each ring goes into place over its locating pin. Is there a possibility that the piston may have a flaw or a

crack in it? The ignition system shown in the diagram would not work at all. If the present system uses a jump spark coil and plugs, as appears it does, it is possible that the coil is out of order or uses too much current. It should be possible to adjust the trembler so that when it is vibrating steadily the current consumption as shown by a pocket ammeter is less than 1 ampere. A good coil will take from $\frac{1}{4}$ to $\frac{1}{2}$ ampere.

HAS NO YEARLY MODEL

New York—Editor Motor Age—A very serious phase of the motor car selling industry has been the marketing of new models at a certain period of every year. The manufacturer of a standard make of car introduces a new model in the fall or winter and it is exhibited at the shows as a new production, embodying new features in design and construction of such a nature as to make this model entirely different from its predecessor. These new models placed on exhibition in the winter and offered for sale in the early spring months of each year embody such improvements as to make previous models undesirable or obsolete. The result has been that in the late spring and summer months when the selling season should be at its best, buyers begin to talk about new models to be brought out in the winter or fall and hesitate to place their orders for cars which in a few months might become obsolete, even though they were anxious to purchase a new car for the pleasure its use would give them during the summer and fall months. Three years ago the Lozier Motor Co. formulated the policy of making changes in models and introducing improvements at any time that manufacturing expediency permitted, and instead of a radical change in models every 12 months the growth of the car has been rather one of gradual evolution. The great benefit to the trade and public resulting from such a policy, if generally adopted by all manufacturers, can readily be understood. The selling season should be a continuous one, the sales varying only with the conditions of the natural seasons, and a purchaser of a car would always have the assurance that he would be obtaining a car with the latest improvements and ideas of the designer. In the last catalog the



CLUTE'S WIRING DIAGRAM

Lozier Motor Co. outlined its position in the following manner: "It may be well, perhaps, here to state that along the line of progressive improvements we reserve the right to make changes in the construction of Lozier motor cars at any time, and in such manner as in our opinion will result in their betterment, it having always been a part of Lozier policy to discard whatever we feel we have improved upon and to put into immediate practice any device we have newly perfected rather than hold it over for embodiment in some later model." We ask your co-operation in furthering this idea by giving the above publicity, if in your opinion the interests of the trade and public will best be served by doing so.—Lozier Motor Co.

HAS AMPLE POWER

Bridgeport, Conn.—Editor Motor Age—Will you kindly tell me what speed a car would be going, geared in ratio as four to one, engine running 1,000 revolutions per minute, 31-inch tires. This car weighs about 2,100 pounds and has a four-cylinder motor, 4 by 4-inch. The compression, I believe, is about 50 pounds when cold. My object in asking this is, under these conditions, is a 4 by 4-inch motor with everything tuned up right, large enough and powerful enough to carry this car across country at a fair rate of speed over average roads and up hills?—C. H. S.

If the motor is turning 1,000 revolutions per minute and the gear ratio is four to one, the driving wheels will be turning 250 revolutions per minute. If the tires are 31 inches in diameter, they are 97.3 inches in circumference and the car travels 24,347 inches or 2,029 feet per minute. In 60 minutes the car will travel 121,740 feet or 23 miles per hour. Under A. L. A. M. rating a 4 by 4-inch four-cylinder motor gives 25.5 horsepower and will, if in good condition, carry a 2,100-pound car and four or five passengers over all average roads at comfortable speed.

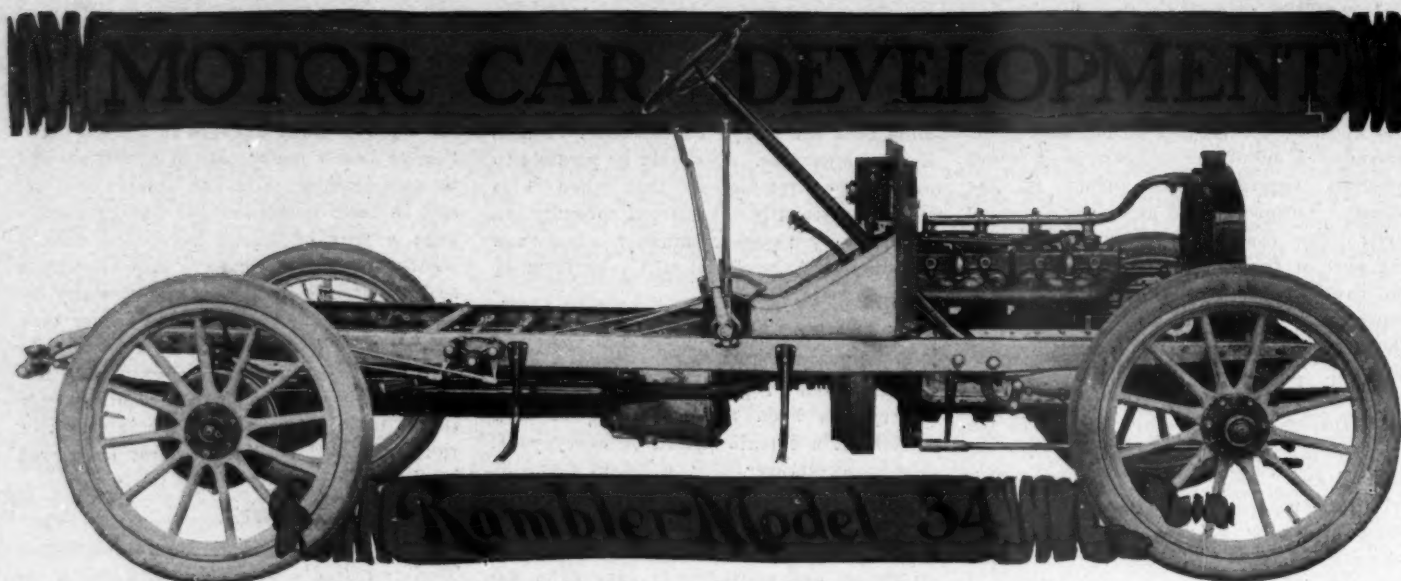
USING TIRE CHAINS

Brooklyn, N. Y.—Editor Motor Age—Is it advisable to use non-skidding chains, one on one front wheel and one on one rear wheel? Would you recommend them used in this manner, and is there any danger of injuring the machine or tires any more than by using them both on rear wheel?—H. L. Ackermann.

It is neither desirable nor practical to use chains in the manner described. If a chain is used on one rear wheel, this wheel will simply hold and permit the other to slip. Use two chains on the rear wheels always; and if the roads are very slippery and crowded somewhat, it is a very good plan to use two chains on the front wheels.

REMOVING NEVERLEAK

Chicago, Ill.—Editor Motor Age—In regard to removing Neverleak from casings, permit me to say there are two compounds of Neverleak. One can be removed with the use of warm water, while the other requires alcohol.—Robert Gedy.



CHASSIS OF RAMBLER MODEL 34, WITH NEW MOTOR AND TRANSMISSION SYSTEM

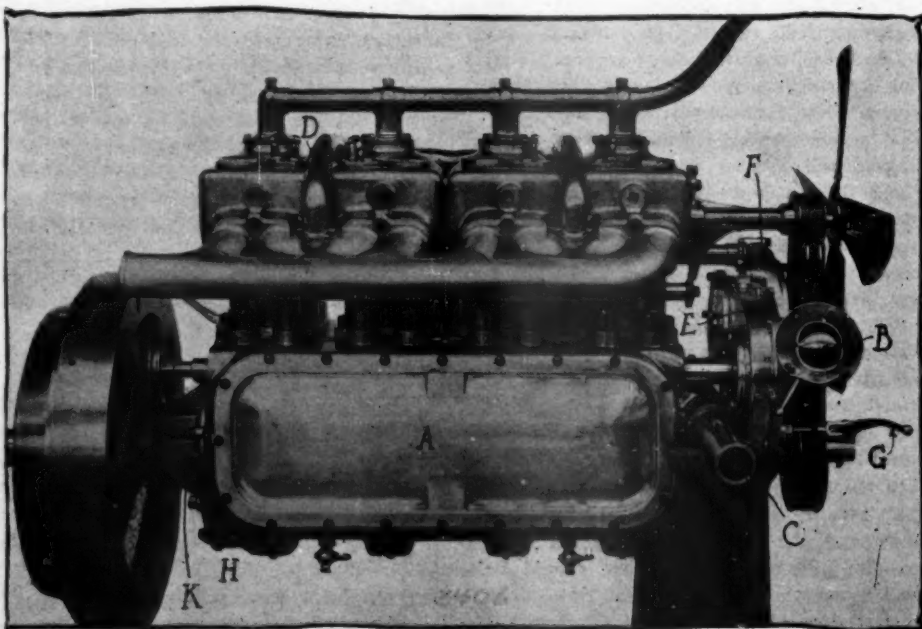
RAMBLER chassis for this season are made in but two styles: a four-cylinder type fitted with touring car, roadster or tourabout bodies; and a two-cylinder style fitted with bodies for runabout use or with a five-passenger touring car having a detachable tonneau. The four-cylinder car is a brand new creation, with new motor, and improved transmission system coupled with many body and running gear changes; and the two-cylinder machine has a reformed motor with but few alterations in the transmission and running gear parts.

Of the two chassis the four-cylinder is the more attractive in that it is the one that the energies of the Thomas B. Jeffery & Co. factory have been concentrated upon and which will be looked upon to keep Rambler colors to the fore during the approaching season. According to accepted rating it is a 32-horsepower vehicle with this power created in a motor with separate cylinder castings—cylinder diameter of $4\frac{1}{2}$ inches, which measurement is used in the stroke. The motor carries many marks that are talking points on not a few cars for this season. Structurally viewed the first of these points is the one-piece crankcase with its large side plate A 23 inches long and 8 inches high on the right and its detachable rear end plate K, the latter plate allowing of the assembly of the parts from the rear. In conjunction with the one-piece case, is the three-point motor support through a transverse tubing C in front, passing through a cylindrical opening in a forward extension of the crankcase, thereby giving two points of support on the mainframe; and a single central support H under the rear of the crankcase at which point a dropped cross member of the frame does the supporting work. Before departing from the crankcase attention could be devoted to the locating of the half-time gears in advance of the transverse tubular support C and within the housing E, as well as the compact grouping of the timer B on a short shaft angling out at 45 degrees, the rotary water

pump F, the automatic starting retarding connection G and the cooling fan.

The cylinder castings, each formed with a right side chamber in which are carried the intake and exhaust valves as well as having the waterjacket integral with them, receive the intake water at the lower left and allow its egress through the top center; and while carrying the intake and exhaust piping on one side, have the intake circle to the left side in two branches, between the first and second and third and fourth cylinders, thereby permitting the carrying of the carburetor on the left side. The three crankshaft bearings, giving a total length of 11 inches, are of the plain type and although the forward one is set directly into the body of the crankcase the rear and central bearings are carried in cylindrical plates set into the crankcase. In assembling, the central and rear bearings are accurately adjusted and the crankshaft positioned through the rear end of the case. These bearings are of the

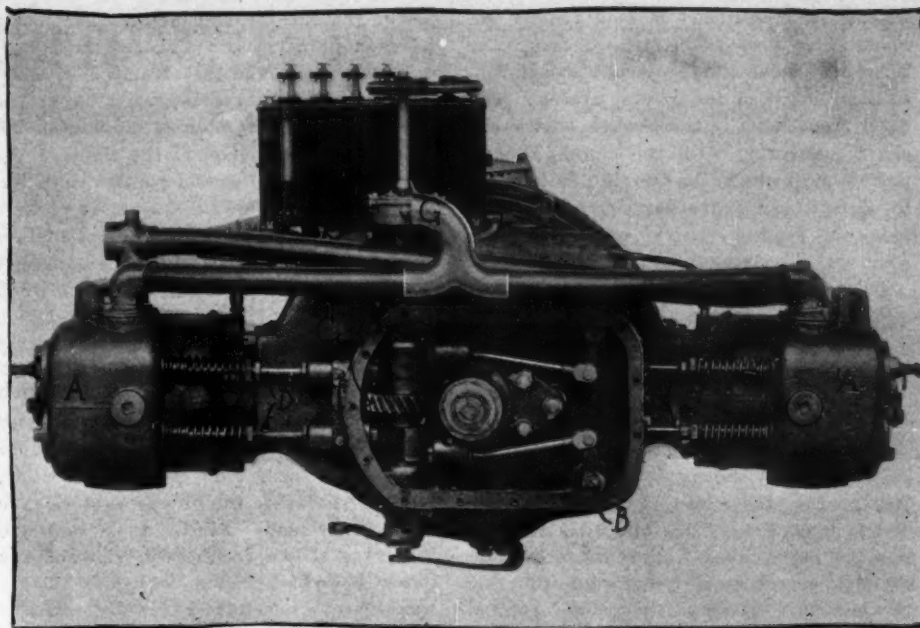
wedge-adjustment type in that the bushing is divided horizontally, the lower half is rigidly carried in its plate, but the upper half, while accurately fitted, permits of a vertical movement accomplished by a horizontal wedge between the top half of the bushing and the plate carrying it. On the wedge are two bolts with nuts, so that by tightening the nuts the wedge is drawn in and the bushing forced down, thus taking up for any wear. Connecting rods are of the marine type—drop forgings—with the main bearing adjustable by a bolt at each side instead of by the use of a hinge as employed in former Rambler models. The piston or wrist pins are anchored to the connecting rod, giving a bearing in each side of the piston. The camshaft, located well up in the crankcase, carries the drop-forged cams, made in pairs, secured to it and is inserted and removed through the end of the crankcase, a condition made possible by making the outer diameter of the bearings of different size



VALVE SIDE OF RAMBLER MOTOR, WITH LARGE INSPECTION PLATE A

so that the smaller-diameter bushings can be removed bodily with the camshaft through the openings for taking the largest-diameter bushing.

Lubrication is by a four-feed mechanical oiler located under the slanting portion of the frontseat aluminum footboard at the left and accessible through a small door in the footboard. The oiler is driven by round wire belt from the rear end of the camshaft and delivers its four leads to the cylinders. Sight feeds are not used, but bleeder tests are placed on the top of the oiler. The crankcase splash cares for the three bearings of the crankshaft and the cylinder walls. Ignition is by jump spark with current furnished from a 6-volt 60-ampere-hour storage cell. In the ignition system use is made of the special Rambler commutator in which the four wires remain stationary when the spark is advanced or retarded. This is accomplished by mounting the four metal contacts of the commutator in a fiber ring within the timer and having on the base of each segment a metal arc of good length. This metal arc contacts on its under surface with a small plunger held against the arc by spring and which plunger connects with the wire. In varying the spark the fiber ring is partly revolved, but its greatest advance or retard is not sufficient to take the metal arcs out of contact with the plungers, connecting with the wires. The commutator is driven by bevel gear off the forward end of the camshaft, which location lends accessibility. In order to remove it in a few seconds the device with its bevel gear is held by a couple of set screws into a large sleeve formed integrally with the half-time gears housing. Loosen these screws and the commutator with its wires and driven gear intact can be pulled out. The change in the Rambler radiator consists in using the same flat copper tubes as heretofore but mounting these vertically in the framework as well as spacing them regularly

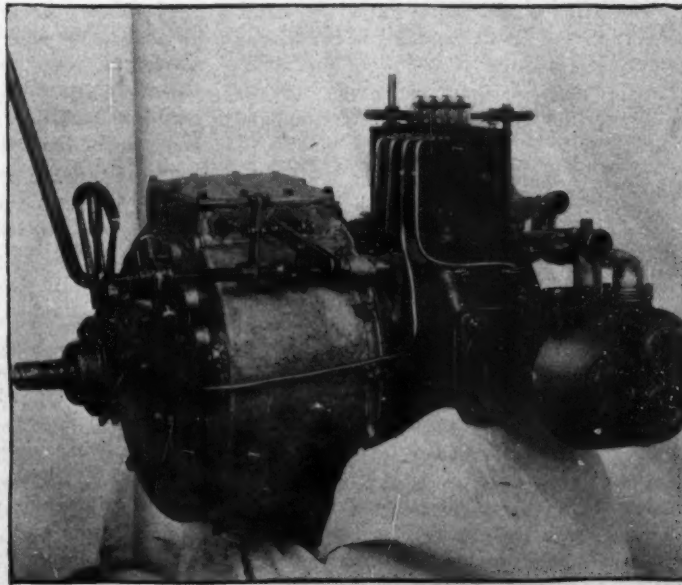
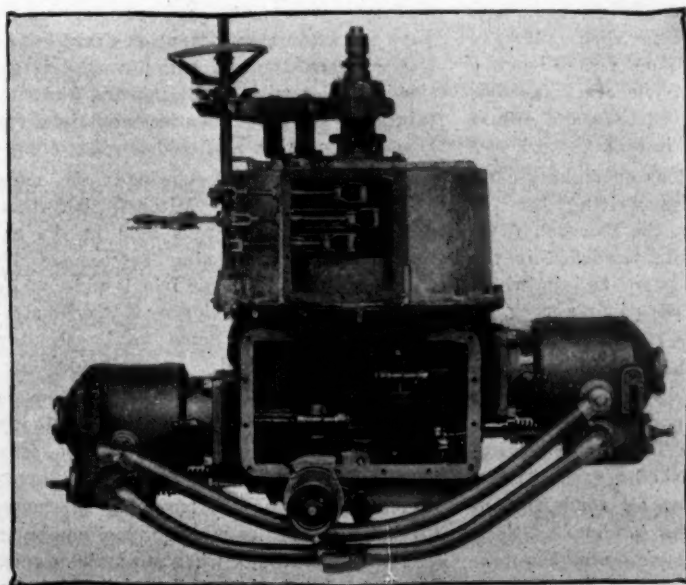


RAMBLER MOTOR, WITH VERTICAL CAMSHAFT IN SEPARATE COMPARTMENT

by transverse bridges, which arch perceptibly in the center so as to harmonize with the top arch of the radiator. Beneath the radiator base is a vertical base plate with its lower edge downwardly arched and which gives the impression of a radiator continuation. The cooling fan is supported from the front cylinder and is carried on a very long hub fitted with two races of balls. The fan support on the forward cylinder is adjustable in that its bracket is carried on two cylinder studs. The upper part of the bracket has a crescent-shaped slot for taking the upper cylinder stud and the lower portion a vertical slot for the other cylinder stud. On the end of each stud is a nut for locking the bracket in any position on the stud.

The balanced cone clutch in the flywheel is as in 1907 and has as its peculiarity two springs surrounding the shaft carrying the coned or male portion. The clutch

is of the inverted type, moved toward the flywheel for engagement, and has the stout engaging spring between the cone portion and the flywheel; and in rear of the cone portion, and between it and the collar to which the clutch pedal attaches, is a smaller spring which tends to resist the action of the larger spring when engagement is progressing. The three-speed and reverse selective gearset is unique in that there is not a universal joint between it and the rear axle and in that the forward end of the driveshaft to the axle is squared and forms the mainshaft of the set. This necessitates enclosing the driveshaft in a tubular housing and rigidly securing the gearbox to the forward end of the housing by casting it thereon. The mainshaft in front of the gearbox is supported from a frame crosspiece through a ring-and-socket support and immediately in front of this is the only universal joint



TOP VIEW OF UNIT POWER AND TRANSMISSION PLANT—THE TWO-CYLINDER RAMBLER—THREE-QUARTER FRONT VIEW OF MOTOR AND GEARSET

in the drive system. It is a readily demountable joint facilitating thereby the removing of the clutch without molestation to the gearbox or the driving system. The short front shaft in the gearset, that is the shaft connecting with the clutch, is supported on three races of plain rollers $\frac{3}{4}$ by 1 inch and the other bearings in the case are Timken rollers; which bearings are used in both ends of the tubing carrying the driveshaft, the rear one of which is adjustable. In the rear axle all weight is carried on the axle housing, the axle being of the floating style yet termed semi-floating in that the spur pinions of the differential gear are made integral with the inner ends of the axle driveshafts preventing the withdrawal of these shafts through the wheel hub as ordinarily done in floating axles. The forward axle is a steel tubing $\frac{1}{8}$ inch wall reinforced by a vertical $\frac{1}{4}$ -inch steel web forced into the tubing under pressure before the tubing is bent to its axle form. In previous Ramblers this reinforcement extended 18 inches from each end, but for this year is made continuous from end to end. In the running gear is noted the use of semi-elliptic rear springs for the first time and the making of these members 52 inches long and using leaves $2\frac{1}{2}$ inches wide. The wheels, too, are 36 inches in diameter, carrying 4-inch tires, and brakes are internal and external members acting on pressed steel drums on the rear wheels, which drums measure 13 inches in diameter and $2\frac{1}{2}$ inches in width. The wheelbase for the touring car is 112 inches and that for the roadster a couple of inches less.

The Rambler utility car, as its maker terms it, is the 22-horsepower, two-cylinder, 5-inch bore and 6-inch stroke car made with the planetary gearset entirely encased, its casing being integral with the motor crankcase, thereby giving a unit

power and transmission plant. The motor is mounted with its cylinders lying longitudinally along the left frame side member, amidship, and the gearset is to the right with the single chain driving to the rear axle in the plane to the right of the gearcase. The motor and gearset show improvements as follows: The valve pockets A are now on the sides of the cylinders—they were on the tops—and the camshaft is a short vertical member driven by a worm gear C off the camshaft, and which gear as well as the camshaft is not within the crankcase at all, but in a separate compartment, the large cover for which is removed in the illustration. One set of push rods D have rollers on their inner ends which bear directly on the cams; whereas the other set of pushrods E have their inner ends within the crankcase proper as shown in the top view of the motor in which the cover plate of the crankcase is removed. This difference is due to the offsetting of the cylinder in connection with which the push rods E operate. The inner ends of these push rods bear upon a short foot on the inner end of the rods B, and on the outer end of these rods B—only one of which is marked—is a short arm, the end of which pivots to one of the slightly-bent rods that straddle the end of the crankshaft and pass to the camshaft, where they carry the conventional rollers for bearing upon the cams. This unique cam arrangement leaves the entire top of the crankcase free so that the end bearings of the connecting rods can be worked upon with facility. Yet another improvement on this utility motor is carrying a four-feed mechanical lubricator on the cover of the crankcase—a compression oiler was previously used—and driving it by wire pulley from the upward continuation of the timer shaft. The transmission portion of the power

plant evidences improvement first by the use of rapidly demountable bands on the transmission, which bands can be removed through the opening shown in the top of the housing. An alteration appears in the method of operating the direct-drive high-speed clutch in that the linkage from the sliding collar on the transmission shaft operates in a cam slot carried on the short crossshaft which carries the side lever. The slow forward speed is obtained by the same lever, and the reverse by pedal. The high-speed cone is a multiple disk affair. To facilitate starting of the motor a compression relief device is attached which consists in a vertical movement of the camshaft accomplished by the short arm, seen beneath the camshaft compartment in the illustration showing the camshaft, and the hub portion of which lever has a cam surface bearing normally in a recess in the adjacent casting, but which on revolution rises out of this depression at which time the camshaft is given its endwise movement.

The running gear includes a pressed steel framework, scroll elliptic springs in rear, 34-inch wheels and brakes on rear wheels and the transmission. Steering is through a worm-and-nut gear as used in the big car, and on the steering wheel are mounted spark and throttle control, the old familiar ring control beneath the hand wheel having been discarded. The radiator is a flat tube type differing from that employed in the four-cylinder machine in that the tubes are arranged horizontally and the spacing bridges mounted vertically. The cooling system is by thermo syphon circulation. The wheelbase measures 106 inches. Instead of tilting the body sidewise, as in 1907 to get at the motor, it is hinged at the rear and tilts upward, and when so tilted affords access to the entire unit power plant.

MOTOR CAR LITERATURE

The High-Wheel Auto Parts Co., Muncie, Ind., has a small catalogue containing working drawings of its parts for motor buggies. Dimensions are given on the drawings and text explanations accompany each.

The "Advance Information" on the Belden Motor Car Co. contains side elevations of the cars with the background relieved by parallel vertical lines. The effect is good and could be imitated to advantage by makers.

"The Sages," a panel-sized eight-page booklet on the Adams-Farewell revolving motor, uses as its cover decoration a map of the universe as seen directly above the north pole and has the five cylinders of the motor printed over the map so the crankshaft of the motor and the axis of the earth align. Underneath is the excerpt: "Some people are so conservative that they dare not sweep down the cobwebs for fear the roof will fall on their heads."

The latest Morgan & Wright book uses an embossed paper cover with "Morgan & Wright Tires, 1908" on a shield and a roadster car as the only decorations. The text is descriptive of the tires and also is made up of laudatory letters.

Those desirous of ideas on making catalogues could profit by writing for the latest booklet issued by the Monarch Typewriter Co., Chicago, Ill., published in the interests of its typewriters and in which some commendable illustrations appear.

The Touring Club of Italy is circulating a set of four maps that will prove valuable to tourists who intend making the Appenine peninsula a portion of their continental journeyings. These maps correspond with those published a year ago and are in colors and show all roads, mountains, streams and every landmark. Each map folds into pocket size and has provided an envelope together with book-form of index giving distances and other data.

Among the Christmas announcements none attracted more attention than that of the Stoddard-Dayton, which was a large-sized booklet with double covers, and containing a one-page announcement in green type with a green and gold border.

The 1908 Mitchell catalogue is more Mitchell car and less "Mitchell girl" than formerly. The design is bold in the extreme, each page being surrounded by a pale green border over 1 inch wide, while the text is in one color and the illustrations in another. Some good assembly illustrations are used.

"Men Who Sell Things," a 300-page paper-covered volume by Walter D. Moody and sold by A. C. McClurg, Chicago, is a compilation of the observations and experience of 20 years as traveling salesman, foreign buyer, sales manager and employer and contains enough wheat to make a good breakfast for aspiring advertising men or motor car salesmen.



LEGAL LIGHTS AND SIDE LIGHTS



EXAMINATION FOR CHAUFFEURS

The Louisville Association for Chauffeurs, through its president, James B. South, is endeavoring to have passed a city ordinance calling for a severe examination of chauffeurs before licenses are issued. President South will call on the mayor to impress upon him the necessity for an ordinance creating an examining board to pass upon the fitness of all who aspire to serve as chauffeurs in Louisville and licensing the same. The examining board, if one is created, will pass upon the qualifications of every man who may apply for a license to operate a motor car in Louisville, and no one under the age of 18 will be eligible to serve in that capacity. Among other requirements, all chauffeurs, before they are granted licenses, must have a complete knowledge of the mechanism of all manner of cars and must be skilled in the way of making repairs, where such are possible, in cases of an emergency where the machine has met with an accident. In addition to these requirements all chauffeurs must be level-headed and capable of using cool judgment in moments of extreme danger. Flighty young men will be barred from the service, provided the measure contemplated by Mr. South passes. Another requirement that will be exacted of chauffeurs granted licenses by the board of examiners is that they be discreet concerning conversations they may overhear while driving cars occupied by two or more persons. All of the details of the proposed ordinance have not been definitely decided upon by the association, but after it is outlined it will be placed in the hands of some member of the lower board of the general council for introduction. The association has not settled upon the amount that should be charged chauffeurs for licenses, but they favored a nominal sum. President South argues that the passage of an ordinance creating an examining board and requiring chauffeurs to take out licenses will insure a better class of chauffeurs in Louisville.

SUES THE JUSTICE

Philadelphia motorists are watching with interest the outcome of a suit instituted by Frank H. Young, of Jenkintown, a Quaker City suburb, which, it is hoped, will put a stop to the alleged persecution of motorists up Bristol and Hulmeville way. Last August Mr. Young, so say the authorities of the district mentioned, drove through that section and failed to sound his horn at all the cross-roads. While the alleged offense was committed more than 4 months ago, it was not until November 18 that the Hulmeville authorities woke up and began sending letters to Mr. Young advising him to settle and avoid a prosecution. As Young was well aware of the provision of

the law which required cross-roads toots he contended he had observed the rules on August 18, and therefore, confident the charge could not be sustained, he recently went to Hulmeville to fight the case. He took a Philadelphia lawyer along with him. Squire Keen, at Hulmeville, would not be impressed by the Quaker legal light, and although the latter put up a stiff defense the verdict was against his client. The defeat, however, was expected, and arrangements had been made for an appeal. But the 'squire, in naming the amount of the fine, overreached himself. "Ten dollars and \$3.35 costs," said he. Now \$3.35 costs is said to be exorbitant, and the wily barrister knew it. Instead of an appeal, therefore, he accepted the magistrate's receipt for \$13.35 and immediately instituted suit against him for imposing and collecting illegal costs. Since Mr. Young's kick it has come to light that the 'squire has raised the ante many times during the last year in soaking the motorists brought before him for various breaches of the law, and now half a dozen other motorists are eagerly awaiting the result of Young's suit, intending to bring similar action against Keen.

GUEST SUES HOST

An interesting case is slated to come before the superior court of Taunton, Mass., in the near future. Dr. T. A. Ford, of North Attleboro, has brought suit against Louis D. Barrows of that city for injuries received in a motor car accident. Dr. Ford was a guest of Mr. Barrows on a motor trip several months ago. The party comprised several people and Barrows was driving the car. While they were going through the town of Adams the car figured in an accident and was wrecked. Dr. Ford sustained injuries that laid him up for some time, while one of the other members of the party was killed. Now Dr. Ford alleges Barrows operated the car in a negligent and careless manner, as a result of which the accident occurred, and he sues for \$25,000 damages. Barrows is one of the wealthiest young men of North Attleboro and a well known motorist in that section.

HARTFORD'S LATEST

Some time ago the police of Hartford, Conn., put in force a regulation controlling vehicular traffic. All vehicles must keep on the right side of the road. A Chicago driver was the first motorist to fall into the hands of the local police for violation. A small boy on a bicycle swung in front of his car and a collision resulted, with no one the worse for the experience. The driver was brought before Judge Clark of the police court and fined \$50 with costs on one count and \$1 on the other.

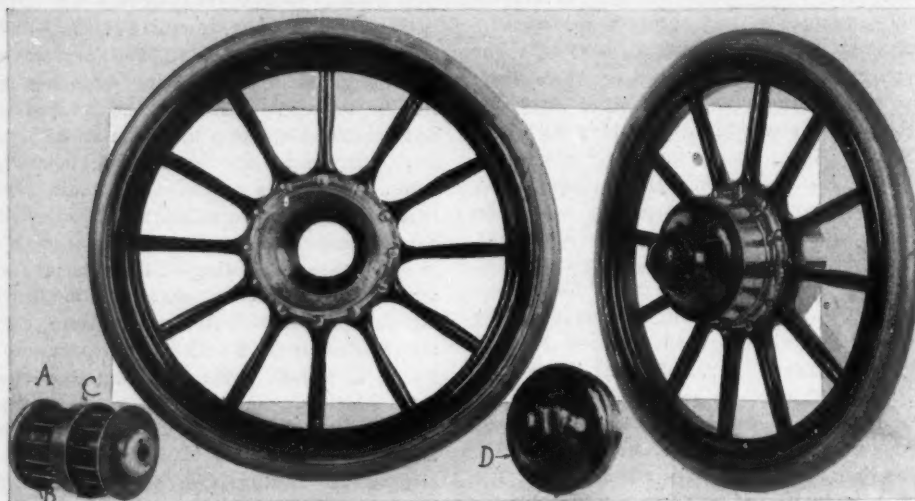
MARYLAND AFTER A LAW

Osborne I. Yellott, counsel for the Automobile Club of Maryland, has drafted a bill with a view of elevating motoring in the state and lessening the prejudice against motorists as a class, which he will have introduced in the next legislature, which meets this month. The main features of the bill are these: The provision for the appointment of a commission by the governor, consisting of three members, who shall license motor cars, examine drivers to determine their qualifications and abilities as such, whether owners or professional chauffeurs; to investigate violations of the speed laws and accidents resulting from reckless driving and to have absolute power as to the suspension and revocation of licenses. Regarding the limit of speed in the state, Mr. Yellott said he favored the plan adopted with success in Massachusetts and Connecticut and he wants to pass the uniform state law recommended by the American Automobile Association. It provides in general that "no person shall operate a motor car at any speed greater than is reasonable, having regard to the width, character, traffic and use of the highway." If any person shall operate a vehicle at any greater rate of speed than 20 miles an hour in the open country or 12 miles an hour in the built-up portion of the city, on sharp curves or at intersecting highways, such shall be deemed prima facie evidence that the rate of speed is unreasonable and will justify a conviction in the absence of proof by the driver of the motor car that the speed under all the circumstances was not unreasonable at that particular time.

GLEN ECHO IS DEFIANT

Mayor Garrett and the council of Glen Echo, Montgomery county, Md., will not only not refund the fines and forfeitures collected from motorists for speeding their machines in violation of Glen Echo's ordinance, unless forced to do so by due process of law, but will continue to enforce the regulation, despite the recent decision of Judge Henderson that the conduit road is not a public highway within the meaning of the Maryland statutes, and that the laws of the state do not apply. This decision was reached at a recent meeting. Motorists have paid exactly \$860 in the town's treasury since Glen Echo became a municipality. The decision to continue to enforce the ordinance was for the purpose of getting the question before the court of appeals. The latest plan of the town officials is not to make arrests, but to collect evidence against all those who run their machines faster than 12 miles an hour, and ask the March grand jury to indict. Therefore, those who thought this famous case had reached an end have been fooled.

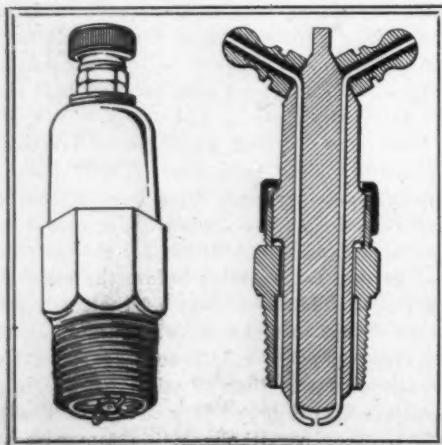
DEVELOPMENT BRIEFS



SCHUYLER SPRING WHEEL ASSEMBLED AND DISASSEMBLED

NOVEL IDEA IN SPRING WHEELS

Two illustrations show the Schuyler-Hyle spring hub wheel for motor cars. A cylinder or spool A contains the springs B, which, it will be noted, are round instead of flat. This is the first time round springs have been used in this manner. The advantage claimed is that each spring is compelled to carry its proportion of weight no matter what may be the position of the springs in the hub, whether on top, bottom or on the sides. The springs can be increased or decreased in number or thickness necessary to carry any load that may be required. The center collar C through which the springs pass fits in the hub directly under the spokes of the wheel and the weight of the machine rides upon the springs at this point, giving all the cushion necessary. After the spool is placed in the hub, a plate cap is screwed on just tight enough to allow the spool to move up and down in the hub according to the pressure brought to bear upon it, whether directly from the weight of the machine or by shock from contact with the ground.



HARDY AND OLD NICK PLUGS

The hub-cap D then is screwed on and acts as a lock-nut to the place cap previously screwed on, giving a nice finish to the wheel and making the internal construction of the wheel absolutely dust-proof. A set of these wheels has been completed and they are now running on a car in Syracuse weighing 2,400 pounds. Solid rubber tires are used and the wheels are giving excellent satisfaction. The inventor is W. A. Hyle, of Syracuse.

RELIANCE PLUG RADICAL IDEA

The Jeffery-Dewitt, Co., Newark, N. Y., manufactures the Reliance spark plug which has gone the round of the shows, having been exhibited sparking in a glass of water. This plug differs radically from the accepted style in that the central terminal of the electrode, passing through the center of the insulation, ends in hair-like platinum wire entirely protected against corrosive action by being backed in and brought flush with the lower end of the porcelain insulation. The spark, in leaving this minute point, is claimed to be intensified to such a degree that the heat and scouring action of the spark being directed against the insulation destroys any short-circuiting matter that might surround the point. The porcelain is flexibly supported by asbestos wicking compressed within a metal sheath, making the porcelain, packing and sheath a unit.

FOE TO SHORT CIRCUITING

The Fire Fly spark plug made by the Auto Specialties Mfg. Co., Milwaukee, Wis., differs from the majority of spark plugs in that the spark occurs within a combustion chamber in the end of the plug casing and the exploded gases eject through several holes in the plug, the idea being that the force of the explosion within the plug is sufficient to remove all dirt and soot and render short-circuiting practically

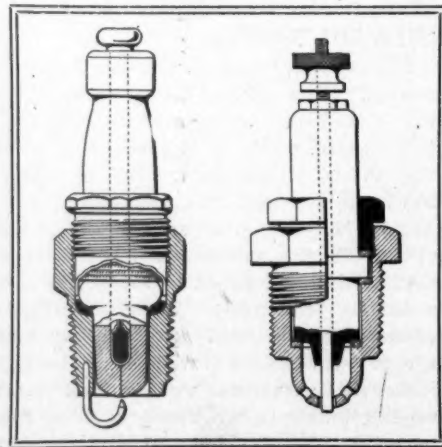
impossible. The casing part of the plug resembles a woman's thimble, with fine perforation in the end and the sides and threaded to anchor the plug in the cylinder casting. The thimble is threaded at the inside at the top so when the Dresden porcelain insulation is inserted a ring nut threading into the thimble holds the porcelain in place. The positive wire in the porcelain is fitted with meteor points which are claimed to stand as much heat as platinum and do not corrode or disintegrate under heat.

SPARK HAS FOUR COURSES

The R. E. Hardy Co., New York City, has placed on the market a new plug in which the spark in jumping from the center wire of the plug has four courses—to any one of four short terminals on the plug casing. The four terminals, or negative electrodes are distributed around the mouth of the plug casing at 90 degrees to one another. In other respects the plug is similar to the regular Sta-Rite plugs.

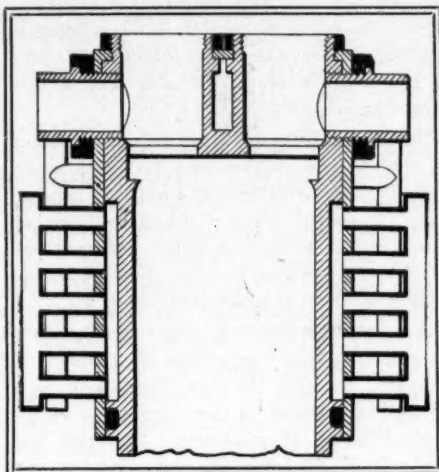
THE PLUG THAT'S SIMPLY MADE

A combination magneto and jump spark plug has been put on the market by the Motor Car Equipment Co., New York. It is called the Power plug, and is made of only two parts, the body and the electrode. The body once screwed into the cylinder, need not be removed, thereby saving the cylinder thread. It also acts as a pet-cock. In order to clean the electrode, it is unscrewed from the body of the plug, wiped with a rag and replaced, then it will adjust itself accurately. There are no gaskets in this plug, only unyielding metal-to-metal surfaces. The Power plug has a large chamber and a heavy non-corrosive electrode. Its special advantages are that it is simple in construction, is self-adjusting, may be used for both coil and magneto. This plug is not illustrated. The fourth shown is made by the Pioneer Brass Works, of Indianapolis, Ind.



RELIANCE AND FIRE FLY PLUGS

CURRENT MOTOR CAR PATENTS



GREEN'S AIR-WATER COOLED ENGINE

Four-Cylinder Two-Cycle Engine—No. 874,200, dated December 17, to P. B. Hoyt, New York City.—This motor has four opposed cylinders, two at one side of the crankshaft and two opposite, and the cylinder bore of the opposite pairs aligned. One connecting rod serves for two cylinders and the crankshaft has but two throws, as ordinarily used for a two-cylinder engine. Using one connecting rod for two cylinders means that when one is exploding the other is inspiring; and the motor has the pistons in the opposite pairs firing at opposite sides of the crankshaft simultaneously, thereby eliminating any possibility of two explosions at the same side of the shaft occurring together.

Clutch Transmission—No. 874,075, dated December 17; to W. S. Hovey, Three Rivers, Mich.—This gearset has main and countershafts, with the motor delivering its power to the end of one shaft and the power being transmitted to the drive axle from the other shaft. On the shaft driven from the motor are three gears, two keyed to the shaft and one at the engine end secured by a clutch. On the countershaft are three corresponding and constantly meshing gears, two in mesh with the rigid gears on the mainshaft being clutched to the shaft and that in mesh with the clutched gear on the mainshaft being rigid on the shaft. This arrangement is such as to give three speed variations.

Motor Car Design—No. 873,434, dated December 10; to J. P. Hepburn, Lochwinnoch, Scot.—A vertical multi-cylinder motor is carried in rear of the front axle and pivotally supported thereon; in the rear of it is a gearbox formed integrally with the motor base; extending to the rear axle is a driveshaft enclosed in a double-tube casing, the inner part of the casing fixed at its front end and free to slide at the rear and the outer tube fixed at its rear and free to slide at its front end. The

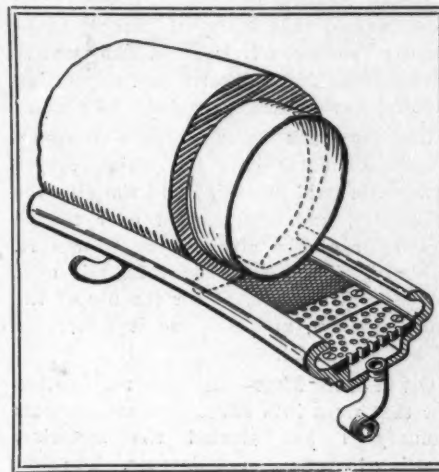
driveshaft is made without universal joints.

Dropped Frame—No. 872,774, dated December 3; to C. P. A. Van Fels and J. M. Kneeland, New York.—In this pressed steel frame the side members are dropped deeply in the rear of the front axle and ahead of the rear axle. Between the dropped part of these members is a pair of horizontal subframe members extending from the front end of the drop to the rear of the back end of the drop and supported at the rear on a heavily dropped cross frame piece. The subframe is for carrying the motor and transmission and located so low it is intended to give a very low center of gravity to the car.

Rim Tire Support—No. 872,860, dated December 3; to W. C. Taylor, Paris, Fr.—In combination with a wheel rim for carrying a pneumatic tire is a plate perforated extending between the rim flanges and forming a support on which the tire rests. Beneath this rim is a depressed part of the wheel rim forming an annular groove normally filled with air. Tubes are formed in connection with this rim for the entrance and exit of air, the object being the apparent increase of resilience in the tire.

Controlling Arrangements—No. 872,101, dated November 26; to C. C. Worthington, Dunnfield, N. J., and H. R. Worthington, Irvington-on-Hudson, N. Y.—On an inclined pillar are controls whereby a rod in the pillar can be depressed at which time, owing to the presence of a bellcrank arrangement, the brakes are applied. Inter-connected is a means whereby the gas to the motor is throttled at the same time.

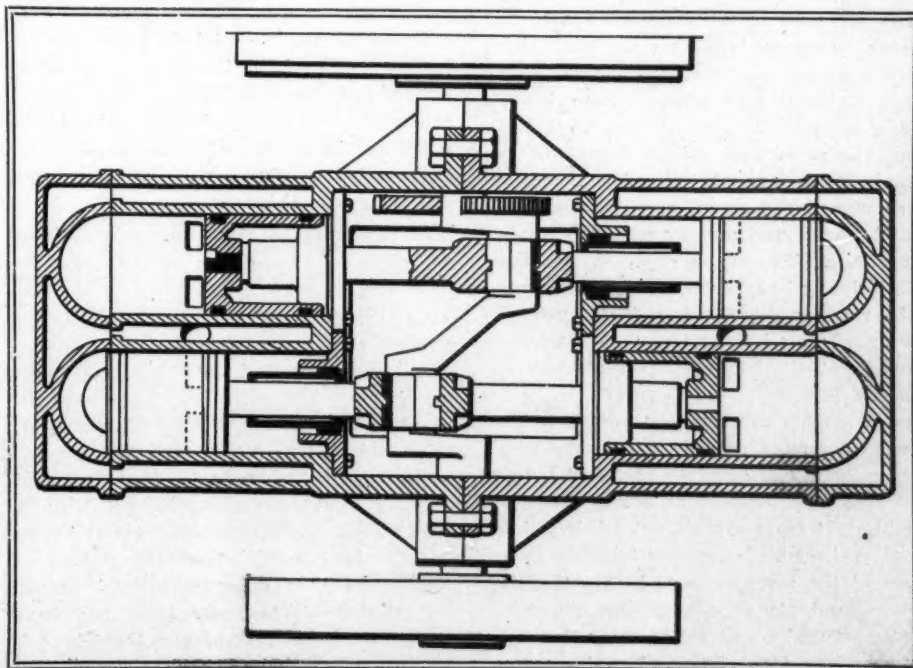
Water Cooling—No. 871,797, dated No-



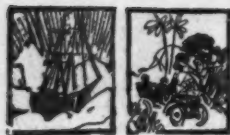
TAYLOR'S PERFORATED SUPPORTING RIM

vember 26; to G. Green, Boxhill, Eng.—Surrounding each cylinder wall is a water-jacket space and outside of this jacket is an additional water space in the form of a radiator, the idea being that the radiator surrounds the jackets instead of being a separate portion of the car located in front.

Ball Bearing—No. 874,401, dated December 24; to F. Greiner, Berlin, Ger.—This bearing has an outer ring with the inner surface grooved and an inner ring with its outer surface grooved, the intervening space accommodating a race of balls. The balls are each held in a separate place by means of spacing bridges which are carried on transverse pins that are carried in flat side rings which enclose the annular space holding the balls and also assist in maintaining the lubricant in place.



HOYT'S FOUR-CYLINDER OPPOSED TWO-CYCLE ENGINE



FROM THE FOUR WINDS



Haupt Recovering—Word comes from New Mexico that Harry S. Haupt, agent for the Thomas in New York, who went to Albuquerque for his health, is recuperating rapidly, having already gained 14 pounds.

Car for Park Commissioners—Boston's municipal motor car, for which Mayor Fitzgerald paid one-third and the city the remainder, has been turned over to the new ruler of the city, Mayor George H. Hibbard. The latter has turned it over to the park department for the use of the commissioners, and will use it rarely, as he has a car of his own.

Given More Time—The new registration law that went into effect in Massachusetts January 1 has started the motorists hustling to get out new licenses. The first few days there was such a rush to exchange old for new certificates that the streets near the commission's headquarters was crowded with cars. The commission has made a ruling that to avoid the great rush of everyone wanting to get registered the first few days motorists will have at least 30 days' grace. However, after that time if any motorist fails to re-register and is not able to give a good excuse he will be dealt with severely.

Queer Looking But It Runs—A motor car which lacks the finish of the 1908 models and which never saw the inside of a factory is in use at Daggett, Cal. The machine was built by a miner for use on the mountain roads, after he had failed to make a success of hauling his ore to the railroad by horse-drawn vehicles. Daily trips are made by this freak machine, which is equipped with a two-cylinder engine. The motor was taken from a machine wrecked on the mountain roads. The miner began to build his car with little more than the engine and parts left. These were twisted, and several were broken while being straightened. In a blacksmith shop the parts were welded together. The repair work was clumsy. Then the engine was placed on an undercarriage of a small wagon and a body of scrap lumber was built. The entire car cost less than \$75. Heavy hand brakes for use on mountain roads were fitted and the machine was ready for its trial trip. The gasoline tank is at the back of the seat. An extra can is always carried in case of emergency, as this car travels through a country where gasoline is not on sale every few miles. The machine can do 20 miles an hour over indifferent roads. Ore can be brought from the distant mining claim to the railroad. Inter-town trips are possible and the machine already has traveled many hundreds of miles. The owner recently refused a contract to carry the mails between Daggett and several smaller towns. Though the gasoline buggy has been built



DIFFICULT TOURING IN THE WEST

only a short time, it has already done special service for the miners of Daggett. Emergency trips for medicine have several times been made and the car has always held up on these trips.

Manning Reappointed—John B. Manning, for several years a member of the state highway commission in Massachusetts, whose term expired January 1, has been reappointed by Governor Guild. He is very popular with the motorists. He often recalls the fact that after the new speed law went into effect a year or so ago he was the first victim while out viewing the roads in the western part of the state, being held up in his own district by the officers.

Kaiser Will Boost—In Berlin was held in December a meeting convened by the most important representatives of the motor manufacturing industry at the tacit wish of the government, to consider the means to be proposed to the government in order to abolish the crisis in the motor car industry which is beginning to weigh heavily on the resources of even the largest concerns. It is certain the government will help the movement by legislation and encouragement of motor events of a racing and industrial character.

Mrs. Cuneo Would Race—Mrs. John Cuneo, who has driven in two Glidden tours and repeatedly demonstrated her ability to handle a high-powered car in competition with men, has notified Secretary T. F. Moore of her intention of entering a Rainier in the Westchester stock chassis race. Mr. Moore told her that personally he would be glad to see her compete, but that he could not speak for the committee, and there was no telling how it will decide on the application. Mrs. Cuneo claims a right to recognition on the ground of having been in other races and proven her ability. She argues that they have women racers in Europe and that there is no just reason why we should not have them here. Mrs. Cuneo says it would be

easy enough and fair enough for the committee to make a rule that no woman is eligible unless she has competed in four or five other contests. Under such a rule Mrs. Cuneo could qualify.

Up Mount Ranier—H. B. Grant, manager of the Seattle Automobile Co., has taken several parties up Mount Ranier in Franklins. A recent picture taken in front of the Langmire Spring hotel shows these tourists on the government road on Mount Ranier 5,000 feet above sea level.

Adventurous Touring—Photographs made on a cross country trip from Medicine Hat, Alberta, Canada, to San Francisco in a six-cylinder Franklin car show some of the difficulties of the journey. The run was made by J. L. Peacock, owner of the car, and there were six guests with him on the trip, one of them being T. B. Jenkinson, son of Sir George Jenkinson, who was so enthusiastic over the trip that he followed it with one to Los Angeles. The distance was about 1,200 miles, which was made in 7 days. While attempting to ford a stream, as shown in the picture, the machines ran into a deep hole and the hood was under water. Twenty minutes after the car was pulled out of the stream it was under way and in good shape.

Plans of the Gliddens—Mr. and Mrs. C. J. Glidden, who already have motored 42,367 miles in thirty-five countries, expect to add Egypt and Syria to their list this winter. To explore the new fields with the motor car and drive in the oldest country the Gliddens will establish headquarters at Alexandria, Egypt, about February 1. West of the city, by aid of the compass, they will venture well out on to the Libyan desert, beyond the recently discovered city of Abu Mina. Retracing the drive over the desert back to Alexandria they will follow up the Nile deltas to Cairo, which is 130 miles from Alexandria. Their drives in northern Egypt on the desert to the oasis and return ought to total about 500 miles. Drives south and east of Cairo to the pyramids of Gizeh, thence across the desert to those of Abusir and Sakkara can be accomplished, and a good road now runs from Cairo to Suez, so Egypt can be added to the Gliddens' list of countries by the middle of March with a mileage of 1,000. It will be necessary in order to reach Syria to ship the car from Egypt to Jaffa, from which place a good road runs to Jerusalem, the Dead Sea, the Jordan and other points of interest. To reach upper Syria the Gliddens must return to Jaffa and sail to Haifa, motoring from this point over the mountains of Samaria to Nazareth and the sea of Galilee at Tiberius. Returning and sailing from Haifa, their next point in Syria will be Beirut. From this place they

are assured a good road to Damascus, Homs, across the Syrian desert to the ruined city of Palmyra, and possibly to Babylon and the Euphrates, making a total drive in Syria of 1,500 miles.

Hungary Hungry for Cars—The attention of the federal government has been called to the fourth international motor exposition to be held in Budapest, Hungary, in the month of May, 1908, as of especial interest to American motor car exporters. The president of the proposed exposition particularly requests that American manufacturers take part and exhibit any motor agricultural machinery that they may be able to supply to the progressive farmers in Hungary. It is stated that Americans will not find domestic rivals in the Hungarian market, that the Roumanian and Servian importers buy much machinery of this class in the Hungarian market, and that Americans can easily place their machines in Budapest, owing to the transportation advantages offered by the New York-Fiume service of the Cunard line. Unsold machines displayed at the exposition can be taken back without the payment of duty in Hungary.

Hartford Will Have Show—All is in readiness for Hartford's motor car show, which will be held from January 14 to 18 in Foot Guard armory. There is much agitation in favor of holding the exhibition for 6 days instead of 4, but in all probability the original schedule will be observed. The decorations promise to be well worth while and attendants about the hall will be attired in the same uniform worn at the licensed show at Madison Square garden. S. A. Miner will display the Buick, Pierce and Knox; the Palace station the Oldsmobile, Thomas and Auto-car; Brown, Thomson & Co. the Packard and Cadillac; R. A. Ashwell the Franklin; L. D. Fiske the Corbin, and Electric Vehicle Co. a full line of Columbia gas and electric cars. The Pope Mfg. Co. failed to secure space in due time and is left out, though it is likely there will be a car shown in some local hotel lobby. R. D. & C. O. Britton will show the Maxwell line; the Elmer Automobile Co. the Ford

and Rambler; Connecticut Steel and Wire Co. the Reo, and various accessory makers will be represented.

Syracuse's Miniature Show—Syracuse is to have a show on January 29 and 30. The exhibits which the H. H. Franklin Mfg. Co. had at the Chicago and New York shows will be placed on view in the Alhambra, the big convention hall of Syracuse, and in addition there will be exhibits from a number of manufacturers of accessories, including the B. F. Goodrich Co., the Rushmore Dynamo Works, the Pittsfield Spark Coil Co. and the Badger Brass Co., as well as a number of Syracuse merchants who deal in motor clothing and similar articles. The show will be open from 10 a. m. to 11 p. m., and there will be music afternoon and evening. One of the special features will be the illustration of Franklin engines in the process of construction, which will be done by exhibiting types from the first Franklin to the improved 1908 model. Stereopticon lectures illustrating many phases of Franklin manufacturing and maintenance and telling much of the history of the company will be delivered afternoon and evening.

Briscoe's Views—"It is really amusing when I hear these pessimistic rumors regarding the lessening of motor car sales," said Benjamin Briscoe, chairman of the committee of management of the American Motor Car Manufacturers' Association. "I presume these rumors are started by some irresponsible salesmen who have a few dollars temporarily tied up in some small banking institution and because a few orders for motor cars have been cancelled. I have yet to see the time when more or less orders have not been cancelled. Because the water is being squeezed out of many worthless stocks and financial and industrial institutions have been tottering the reports have been flying broadcast that the demand of motor cars had been met. Any sane and broad-minded individual who has studied the situation knows that motor cars always will be sold. They have become a necessity, not entirely a pleasure. Motoring has reached a stage when the public cannot do without cars.

Especially is this true in the commercial line. Motor trucks and delivery wagons cannot be turned out fast enough to meet the demand. If there is any salesman who feels he has sold all he can the sooner he gets into some other business so much the better, considering the demand, especially for town cars, is very good."

Centuries on New Year's—Favored by fine weather, Chicagoans began the new year by making century trips. One of them was a triple century. Fred Leiser in a Locomobile started to do a double century to South Bend, Ind., and return, but lost his way and finished with 301 miles showing on his odometer for 12 hours 25 minutes riding. The other excursion was the century for Ford owners conducted by Thomas J. Hay, manager of the Chicago Ford branch. Four runabouts and two sixes, all of them cars that had seen plenty of service and mostly driven by owners, swung around the Elgin-Aurora course without a mechanical mishap. The roads were frozen and rutty.

Story of a Lost Hub Cap—An echo of the famous 600-mile reliability run of the Chicago Motor Club bobbed up last Sunday when N. H. Van Sicklen, who acted as pacemaker in the big contest, found a hub cap he had lost from his Apperson Jackrabbit Thanksgiving day. On that day, while coming from Rockford pacing the contestants, Mr. Van Sicklen lost the hub cap—where, he did not know at the time. Last Sunday being a fine day, he got out the Jackrabbit and drove to St. Charles. On the way back he took a cut west of the Latrobe steel mills which he had followed in the reliability for the first time. Rounding the turn he throttled down so low for a team he killed the engine. Investigating, he found his mud apron clogged with mud, which explained the stoppage, the flywheel being impeded by the mud. Happening to glance down at the road right beneath the wheel that had lost the hub cap he saw a glitter. Digging into the dirt he found the lost hub cap. Now he is trying to figure out how many chances in ten million he would have of repeating the performance.



FRANKLIN EXPEDITION UP MOUNT RANIER



MOTOR BUGGY BUILT BY MINER AT DAGGETT, CAL.

The Realm of the Commercial Car



FLEET OF LOGAN COMMERCIAL CARS DELIVERED TO ST. LOUIS DAILY NEWSPAPER

NEWSPAPERS, whether antagonistic to or favorable to the motor car, have been among the first business enterprises in many cities to adopt the motor car as a means of delivering their product, the ostensible reason being the rapid service possible by the use of the car. Without doubt the greatest launching of newspapers into this motor delivery field is that of the Post-Despatch, of St. Louis, Mo., which has seen fit to purchase from the Logan Construction Company, of Chillicothe, O., fourteen model R four-cylinder trucks, each of 1,500 pounds capacity. These wagons were shipped from the factory on December 12 and were put into service within a week of their arrival at the Missouri metropolis. These cars are equipped with a four-cylinder, vertical, air-cooled motor developing 20 horsepower. This motor has been run 14 hours on end without showing any sign of overheating. A special transmission is used, giving two forwards and one reverse; but little shifting of gears is necessary since the power plant is sufficient to carry the wagon loaded on the high gear over any ordinary grade. The wagons have a capacity of 1,500 pounds,

paying load, and a possible speed of 15 miles per hour on streets or roads.

Especial attention has been given throughout the car to the accessibility of parts and ease of repair, so any slight trouble requiring adjustment can be overcome at a moment's notice. Another point is that the driver is at all times protected from the weather, the front of the car being encased by a windshield and storm curtains. All the operating levers are inside the car, so the curtains once in place need not be disarranged. Indeed, in providing for the driver's comfort, the designers of the car have gone a little further than this and have furnished, instead of the usual solid floor, a grating upon which the driver's feet rest and which permits the warmth from the engine to ascend to the enclosed front of the car, insuring a comfortable atmosphere there whatever the temperature may be outside.

These cars make four trips daily—at 1, 3, 5 and 7 o'clock p. m., the trips varying from 10 to 15 miles in length. Two heavy trucks also have been provided to assist in getting the Sunday edition to the trains and to bring the returns during the week

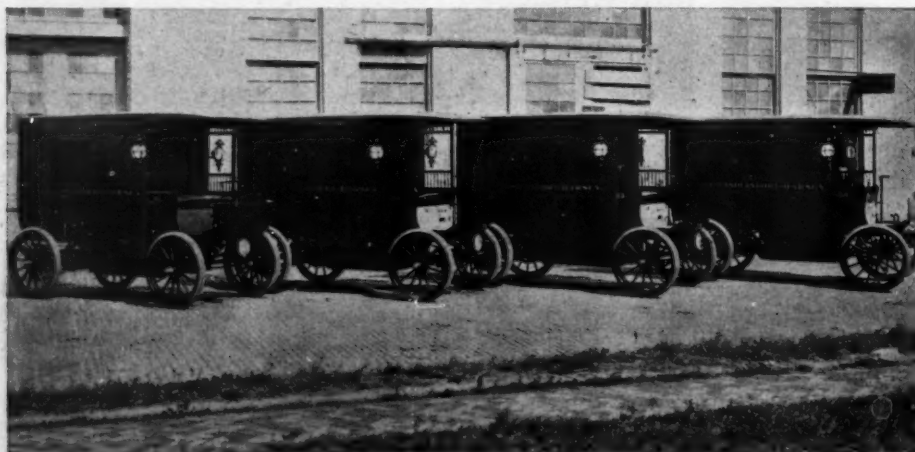
back to the Despatch office. The cars are stored in a special garage and are operated and cared for by the Logan Motor Despatch of St. Louis. The drivers are being especially instructed and no effort will be spared to make the experiment a success in every way.

From the Logan company comes statistics of a demonstration made a short time ago for Gimbel Brothers, Milwaukee, Wis., by a model 4R-four-cylinder air-cooled Logan, which demonstration extended over 4 days. In less than 21 hours nearly 1,000 packages were delivered, with a fuel consumption of 20 gallons of gasoline and a lubricating consumption of 7½ pints of oil, the total cost for both being \$2.97. While at the work the car displaced three and sometimes four wagons. The detailed account of the demonstration follows:

Routes—	Wagons displaced	Stops
A. M., east, Erie to North.....	3	100
P. M., east, Brady to city limit..	2	110
A. M., south side inc. Bay View..	3	80
P. M., south side inc. Bay View..	3	75
A. M., west side to city limit....	4	160
P. M., west side to city limit....	4	186
A. M., north side to city limit....	4	150
P. M., north side to city limit....	4	120
	27	981
	Gasoline	Oil
	3 gal.	1½ pt.
	3½ gal.	2 pt.
	4½ gal.	2 pt.
	9 gal.	2 pt.
	20 gal.	7½ pt.
Gasoline at 11½ cents.....		\$2.50
Oil at 50 cents.....		.47
		\$2.97

FOR MUNICIPAL USE

The municipal use of the motor car is not confined exclusively to fire departments, city inspectors, water commissioners, park boards and other official capacities, but has a wide sphere of operation in the hands of inspectors and others employed by concerns holding franchises from the city. A good example of this comes from St. Louis, where the United Railways Co. has recently fitted up a machine in its own shops, which is a time

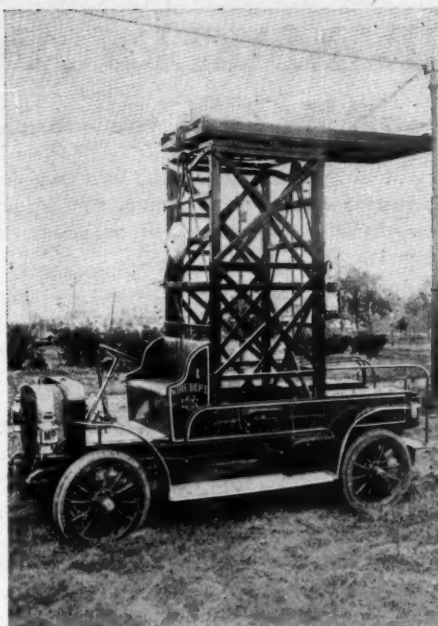


FLEET OF STUDEBAKER ELECTRICS FOR LIGHT DELIVERY

saver and a source of convenience and economy in a number of ways. It consists of an ordinary tower wagon equipment mounted on a motor car body, and is used in making repairs to overhead trolley lines and feed wires. The equipment consists of a collapsible tower with a revolving extension platform, together with detachable ladders and tools. There are seats for six men, with ample storage for tools. The power equipment consists of a 25-horsepower two-cylinder Buick engine and the drive is by side chains. High speed was not necessary and the car can make a maximum of about 20 miles an hour, which of course is about twice as fast as the speed of a team of horses, considering the weight of the equipment, 4,200 pounds. The outfit has a decided advantage over an electric tower car operated on the tracks in that it does not tie up traffic on the road, and it can stand off at the side of the track with the table extended and the cars pass under it. In responding to a case of trouble there is no delay in passing cars and no disruption of schedules. The outfit can be used advantageously for country service and is especially advantageous for repairing transmission lines which are frequently strung across country away from the electric line.

NEW USE FOR TRUCK

Those who had the good fortune to be in the vicinity of the Hartford Rubber Works Co., Hartford, Conn., on Wednesday before Thanksgiving, saw a long line of workmen each paying close attention to the burden within a paper bag handed to him by the company. The contents was the annual turkey from the company to each man. Some idea of the number of birds required may be had by reference to the illustration. The company has in service two commercial cars, one a Columbia 5-ton electric truck and the other a Mitchell wagon. As will be noted all available space in the two vehicles is fully utilized. Not only were the active mem-



MOTOR TOWER WAGON FOR MUNICIPAL USE

bers of the company's force remembered, but also the widows of deceased employees. The Mitchell wagon used by the company for over four months has already a mileage in excess of 3,000. It is the regular Mitchell 1-ton wagon with worm drive and has good carrying space.

FRENCH STILL AT IT

The French industrial vehicle trials in 1908 will be carried out on a more comprehensive scale than ever. There will be eight classes of vehicles, the first six being those capable of transporting goods only, the classes including one in which the cars carry from 110 to 220 pounds of load and the sixth class is that carrying 3 tons and over. The seventh class includes small omnibuses and the eighth class large omnibuses. The fees for entering a car vary from \$60 to \$300, according to size of the car. Another rule, and one calculated to bring the six-wheeler to the fore, is that

regulating to the cars a weight per axle of 4 tons maximum. There will be twenty-five different daily runs or stages and the average speed of $7\frac{1}{2}$ miles per hour is fixed for the lighter cars and buses and $6\frac{1}{2}$ miles per hour for the heavier wagons. Some new details are to be put in the rules regarding the change of parts on the journeys, making the rules somewhat less stringent in this respect than in the past.

PLAN A MODERN STAGE LINE

A stage line between Metaline and Colville, north of Spokane, Wash., is to be started by the Colville and Metaline Transportation Co., which has already ordered two 40-horsepower twelve-passenger stages for the route. The line of travel will be over 40 miles of newly-constructed road, a 4-hour schedule having been decided upon. The line will connect with the Spokane Falls and Northern railroad at Colville and the 127 miles thence to Spokane can be made in $3\frac{1}{2}$ hours. The service is billed to start January 15, after which date the cars will make round trips every two days, thereby giving a daily service in each direction. At present the only available route from Metaline to Spokane is by way of the Pend d'Oreille river to Newport, Wash., and by rail to Spokane, the trip occupying from 20 to 30 hours, according to connections with river boats and railroad. From Metaline to Colville, which is the seat of Stevens county, a trip covering 187 miles to reach a point at a geographical distance of 40 miles, was formerly necessary. The value to the Metaline country of adequate transportation facilities may be judged by the statement of mining men that a greater value of lead-silver ore is held in dumps there than in any other camp in the world. The only development so far is exploration work by fourteen companies. The officers of the transportation company are: S. H. Anschell, Metaline, president and manager; Axel Swenson, vice president, and William Bernhard, secretary.



MOTOR WAGONS WERE USED FOR DELIVERING THANKSGIVING TURKEYS BY THE HARTFORD RUBBER WORKS CO.



AMONG THE MAKERS AND DEALERS



Babson Changes—R. D. Babson has gone with the Billings & Spencer Co., of Hartford, Conn.

Tire Demand Brisk—E. H. Broadwell, of the Fisk Rubber Co., says the sales of high-grade tires are better now than they were at the corresponding time last year, and the prospects show promise of daily improvement.

Dunham Gets Larger Place—George Dunham, who has just secured the agency in Boston for the Corbin in addition to the Royal Tourist, has leased a large building on Stanhope street for a garage and repair shop. It is a four-story building, and he has taken the entire place. He is going to install new machinery and carry a full line of parts.

Garage Business Improving—The Metropolitan Motor Co. of Cleveland reports an improvement in garage business and many demonstrations with Stearns and Pierce cars. A representative of the Auto Shop Co., agent for the Franklin, said the garage business was better than last year at this time. Four large Franklins have been sold since the samples were delivered 5 weeks ago.

Big Garage Planned—Ground has been broken in Philadelphia for what, it is believed, will be the largest garage in the country. It will be built by the William Steele & Sons Co., after designs by Architects Watson and Huckel. The new structure will be three stories in height, with a frontage on Broad street of 122 feet and a depth to Watts street of 120 feet 5½ inches. Eight buildings are to be razed to make room for the big garage, which will cost about \$150,000. A deal is on the tapis to fit up apartments on the upper floor for the Quaker City Motor Club, which is on a still hunt for quarters nearer the bustle and odors of Gasoline row.

Like the 1908 Outlook—Inquiry among the motor car dealers and agents in Washington, D. C., reveals the fact that the number of sales during the year just ended was of satisfactory proportions. The consensus of opinion is that the year's business was equally as large as that of 1906, the banner year with the local trade. A significant feature of this year's business was the unusual number of large cars placed. The national capital has enjoyed the reputation of being a town of small cars, but it lost that reputation early in 1907. Optimism prevails throughout the local trade and the opinion is freely expressed that notwithstanding 1908 is presidential year, always a bugaboo to local business men, the number of motor car sales will be larger than ever before. The year just ended was notable for the increased attention paid to commercial cars. Many business houses have become inter-

ested in the commercial car, including department stores, piano stores, confectioners, bakers and others too numerous to mention.

On the Row Now—The Roman Automobile Co., 1740-42 Market street, Philadelphia, has found it necessary to open a row branch establishment at the southwest corner of Broad and Wood streets.

Hutton a Thomas Detroit—The E. R. Thomas Detroit Co. has added to its force W. H. H. Hutton, who was with the Northern Motor Car Co. for 5 years as purchasing agent and who recently was manager of the Port Huron northern factory. He has been secured to work in connection with F. O. Bezner in the purchasing department.

Owen Has Fine Trip—Ralph Owen, of the Oldsmobile company, has just made a trip throughout Ohio and reports agents showing prospects of excellent business. Many orders for immediate and future delivery have been turned in. Several good Cleveland sales were closed last week. The Chisholm & Phillips company says daily demonstrations are being made with the Stevens-Duryea sixes and that many prospective sales are in sight. The Wentworth Motor Car Co. reports several sales on the Mora within the past week, and it has indications of a number of good sales the next month.

Becker on Prosperity—"Compared with other years we have shipped more of this season's machines up to date than ever before in the history of the our plant," says B. A. Becker, of the Elmore Mfg. Co. "In fact, if we should not make more 1908 cars than we did 1907 cars we have already shipped almost exactly one-quarter, or 25 per cent, of our output. From the present indications, it would appear that 1908 would be one of the best years that we have seen in the motor business. Present conditions have not affected us up to date, and we consider that it is only a question of a short time when conditions will be normal and our factory will be busier than ever before, notwithstanding the increased efficiency of our machine shop because of the addition of some very expensive modern turret-lathe and grinding machines. There is too much pessimism, we believe, in the business world today, and it disagrees with our ideas of things, as shown by the fact that we have more men on our pay roll at this time than we had at the same time last year. The motor business is bound to become one of the most stable in the United States for those concerns which have an output that is progressive and which meets the public demand. It is like any other business, however, possibly because all are not up to date and equipped with the latest im-

provements. We lay our success and the condition of our output at the present time to the fact that we have steadily progressed on one idea—simplicity."

Lockport Agent Dead—John Atkinson, who was a member of the Atkinson Garage Co., which went into bankruptcy a short time ago at Lockport, N. Y., died recently at Niagara Falls.

Take the Garford—The latest addition to Philadelphia's large and growing motor family is the Garford, the local agency for which has been acquired by the Philadelphia Auto Station, at 3425 North Broad street, Tioga. David L. Sykes and Frank Leflen are the proprietors of the station.

Busy at Stearns' Plant—The F. B. Stearns Co., Cleveland, claims to have broken all its records for December shipments in 1907, by finishing and shipping 65 per cent more cars than in any previous December. The shipments were about equally divided between New York, Chicago and the Pacific coast. A full night force has been at work for the last 6 weeks, and the cars have been going through rapidly.

Making Gasoline Locomotives—The Milwaukee Gasoline Locomotive Mfg. Co., of North Milwaukee, which was recently organized with a paid-up capital of \$50,000, is equipping a plant at North Milwaukee for the manufacture of gasoline locomotives for industrial use. The company already has built one locomotive of this type, which has been in use for the past 6 months. During this time the engine has been subjected to the severest kind of tests in switching freight cars and in stringing wires on electric railroad extensions.

New Sollday Garage—The new garage now being built by the Sollday Motor Co., on Eighth street, near Grand avenue, Milwaukee, is expected to be ready for occupancy about April 1. The building is being constructed of pressed red brick. The basement is of concrete, and the sales room on the main floor is finished in hard maple and waxed. The dimensions of the new building are 75 by 125 feet. The building is two stories high, but is being built in such a manner that additional stories can be put on as required. A 22-foot elevator is being installed, and a wash rack is being put in which will accommodate four cars at one time. Steel lockers have been installed on three sides of the main floor, and the company will put in a card and billiard room for the chauffeurs, as well as lockers. The building will be heated by a hot water system. A space 50 by 75 feet has been reserved on the second floor of the new building for vulcanizing and repairing tires. The paint shop will remain in the old quarters of the company at

Fourth and Prairie streets for the present. The company will also manufacture carriage tops in a short time. The building will cost \$34,000.

Aldrich's New Position—R. D. Aldrich now is connected with Brandenburg & Co., 85 Lake street, Chicago, and will represent them in the central territory.

Moves to Chicago—B. C. Swinehart, vice president of the Swinehart Clincher Tire and Rubber Co., is making his headquarters at the Chicago office, 1231 Michigan avenue, where he will look after western trade for the Swinehart company.

Will Hold Snow Tests—The H. H. Franklin Mfg. Co., of Syracuse, N. Y., is contemplating making a series of tests in the Mohawk valley following the French manufacturers who are making snow tests in preparation for the New York-Paris race this spring.

Franklin Changes—Charles H. Rockwell, formerly with the National Cash Register Co., the Autocar company and the Haynes company, has been appointed assistant sales manager of the H. H. Franklin company. H. G. Kilbourne and J. E. Sangston have been appointed branch manager and assistant branch manager, respectively, of the Franklin Automobile Co. in Boston. Mr. Kilbourne formerly was sales manager for the L. A. Becker Co., of New York.

Well Pleased—Faith in the future is shown by the announcement of a large new retail concern in Cleveland. The Cuyahoga Motor Car Co., headed by James Stones, Philip Minch, Clarence Green and others, will handle the National in Cleveland. A fine large garage has been fitted up on Euclid avenue, near East One Hundred and Fifth street, a short distance from the entrance to the park system. The garage is a most complete one, having all facilities for repairs to cars and tires and batteries.

Owen & Co. Confident—"Pursuant to the well-defined policy which we laid out and announced earlier in the season, and anticipating an increasing demand for Reo cars during November and December, the Reo Motor Car Co. has been building cars without any halt or embarrassment whatsoever," say R. M. Owen & Co. "We notified our agents in advance of our intentions, and they in turn, confident that they could rely on prompt deliveries, have been steadily ordering cars, as a result of which our November and December deliveries have been much larger than in any previous year. If this policy proved successful during the critical months of November and December we see no reason why it should not work out as favorably during the remainder of this season. Recent developments in the security market and a general improvement in trade and industrial conditions certainly justify our belief in the thoroughly solvent condition of this country. Conservatism and confidence have taken the place of reckless exploitation and distrust. Money has been

widely diverted from speculative to legitimate business channels, and this fact seems to be gradually righting the business situation throughout the country."

Finds Business Good—The Standard Automobile Co., Cleveland, agent for the Packard and Buick, reports that its allotments on Packards, although larger than last year, is already nearly sold.

Studebaker Branch in Hub—The Studebaker company is the latest to open its own branch house in Boston. The company has secured a place at 1020 Boylston street, right in the heart of the motor section, where it is to have its selling rooms. Another building will be secured for a garage and a repair shop. The company intends to erect a new building if it cannot secure one suitable for its needs. W. S. Daniels has been secured as branch manager of the place.

Tip on Tuning Up—Eugene R. Mertens, a foreman in the repair shop at the Columbia plant in Hartford, Conn., has worked out a scheme for carrying off the exhaust of engines run within doors when the cars are at a standstill. It frequently happens a car in test is being tuned up and running the motor with the machine at a standstill answers all general purposes. Under such conditions the exhaust passing into the shop soon accumulates to such a degree as to become annoying. Mertens took several long pieces of 2-inch iron pipe and drove them through the brick wall. Close up to the end on the inside of the wall he placed a large shut-off cock. Provision is made to prevent the pipes from choking up. The whole outfit cost little or nothing, and the repairmen are now able to tune up the engines within the shop without any disagreeable consequences.

Optical Companies Join Interests—The Bausch & Lomb Optical Co., the Bausch-Lomb-Saegmuller Co., of Rochester, N. Y., and the Carl Zeiss Optical Works, of Jena, Germany, have joined interests for the purpose of carrying to the highest possible development the production of optical, physical and engineering instruments. While as a result of this association the Bausch-Lomb-Saegmuller Co. joins the Bausch & Lomb Optical Co., and becomes an integral part of its organization, having no further separate existence, the Carl Zeiss Works maintain their entity at Jena, inasmuch as by their own articles of incorporation they are bound to exist in perpetuity; but at the same time they become members of the corporate organization, the Bausch & Lomb Optical Co., of Rochester, N. Y., and by the very terms of the aforesaid articles, which prevent any changes in the works at Jena, the same perpetuity feature is made possible for the new organization. It is the intention ultimately to manufacture and to market in the United States and its possessions, the products of the Carl Zeiss works of Jena. The new association has at its command the inventive genius and wonderful re-

sources of the three organizations, including the scientific staff of the Zeiss works, which is composed of twenty-eight eminent specialists.

Trustee for the K. C. Company—I. P. Ryland, of the law firm of Ball & Ryland, was chosen trustee in bankruptcy for the Kansas City Motor Car Co. on Monday.

Townsend Succeeds Lowe—Frederick L. Townsend has succeeded George H. Lowe as president of the George H. Lowe Co. in Boston. The company has the agency of the Aerocar and the American Mors.

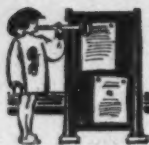
Tincher Joins A. M. C. M. A.—Still another addition is made to the ranks of the American Motor Car Manufacturers' Association by the election of the Tincher Motor Car Co., of South Bend, Ind. This gives fifty-two members to the independent organization.

Logan Locates in Cleveland—The Logan Construction Co. has placed its agency for Cuyahoga county with the Southern Motor Truck Co., of Cleveland, with offices at 805 Citizens building, and a garage at 6410-6414 Detroit avenue. The full line of cars will be handled by this company in Cleveland.

Rainier Branch Moves—The Rainier Motor Car Co., of New York, on January 1 took possession of the building at Broadway and Fifty-sixth street, formerly occupied by the Hol-Tan Co. The latter has opened a temporary office at 1778 Broadway, above Fifty-seventh street, pending the completion of the fitting of the new building it has leased at 244-250 West Forty-ninth street.

Afraid of Leap Year—J. G. Sterling, chief engineer of the F. B. Stearns Co., was quietly married on Tuesday, December 31. He had intended taking the fatal step next spring, but was so afraid of the kidding he would receive from his friends because of leap year, that at the last moment he decided to honor the final day of old 1907 by having the ceremony performed. He gave out that he was going east on a business trip, but the marriage license list in a Cleveland paper and an enterprising reporter gave the snap away.

Trustee Sues Craig—Joseph W. Lane, as trustee of the Craig Motor Car Co., of Toledo, has instituted a suit for \$18,000 against George L. Craig, vice president of the company, in the United States District court at Toledo. The suit is based upon the charge that Craig received a preference over other creditors of the defunct company, which went into bankruptcy last June. The claim is made that Craig was allowed at that time \$20,000 in the form of eight Craig cars in settlement of his claim, when as a matter of fact, it is said, his just proportion, based upon the assets and liabilities of the concern, should not have exceeded the sum of \$2,000. In the present action the trustee seeks to recover the difference between the \$20,000 which it is alleged Craig received and the \$2,000 which it is claimed he should have had.



BRIEF BUSINESS ANNOUNCEMENTS



Wausau, Wis.—Charles Junkerman has been appointed local agent for the Stoddard-Dayton.

Philadelphia, Pa.—The Roman Automobile Co., of 1740-42 Market street, has opened a branch at Broad and Wood streets.

Newark, N. J.—The Brush-MacLaren Co., agent for the Brush runabout, has taken the local agency for the Springfield portable garage.

Jacksonville, Fla.—A motor transportation line has been started from Cocoanut Grove to Little River. The first car went into operation on December 12.

New York—The Astor Auto Co. has been incorporated with a capital stock of \$5,000, and will deal in motor cars. The incorporators are B. Bemstein, Phillip Brill and Joseph Thomas.

Boston, Mass.—The Scott Mfg. Co., of Medford, has been incorporated with a capital stock of \$75,000, and will manufacture carbureters, etc. The incorporators are R. G. Livermore and R. G. Scott.

Dover, Del.—The Mexico City Motor Cab and Omnibus Co. has been incorporated with a capital stock of \$50,000 by J. F. Mosby, of New York city; A. A. Kelley, Montclair, N. J., and J. Virdin, of Dover.

Delphi, Ind.—Louis Ruffig is shortly to start a motor transportation route from this town to other towns not now reached by railroads or interurbans. He will put a seven-passenger car into service, and will maintain a regular schedule, making extra trips on occasion.

Dover, Del.—The American Motordrome has filed articles of incorporation with a capital stock of \$500,000, and will plan, build, operate and maintain indoor and outdoor racing tracks for motor vehicles, and motor cycles and will fit up testing grounds. The concern is a new one in this country.

Hartford, Conn.—The Hartford Rubber Works Co., which for the past few weeks has been running on a schedule of 5 days a week, closed down for 2 weeks for a general inventory and overhauling of the plant. According to President J. D. Anderson, it is likely that when the plant reopens it will be run on full time.

Cleveland, O.—Application has been made for a receiver for the Holmes-Booth Auto Co., of 10550 Euclid avenue. The company has already filed a deed of assignment. The W. M. Pattison Supply Co., the Diamond Rubber Co. and the B. F. Goodrich Co. are the signers of the petition, and they request that the effects of the concern be removed from the custody of the assignee, and that they be adminis-

tered by a receiver. The concern places its assets at \$3,000 and its liabilities at twice that amount.

Hartford, Conn.—A preliminary certificate of dissolution has been filed by the West Haven Motor Co.

New York—The Fiat Repair Co. has been incorporated with a capital stock of \$7,500, and will conduct a garage and deal in and repair motor cars.

Philadelphia, Pa.—The Empire Auto Top Co. has made application for a charter. The concern will manufacture tops, bodies and other motor car accessories and parts.

Madison, Wis.—The Meiselbach Motor Wagon Sales Co. has filed articles of incorporation with a capital stock of \$10,000, and will act as sales agent for the Meiselbach Motor Wagon Co.

Trenton, N. J.—The Brush-McLaren Motor Co. has filed articles of incorporation with a capital stock of \$5,000. It will deal in motor cars, parts and supplies. The incorporators are Thayer McLaren, A. V. McLaren and John Stern.

New York—A concern to file a petition in bankruptcy is the Larchmont Automobile Co., of Larchmont. Lester C. Frutol and Herbert L. Adams, Jr., are the members of the company. The assets of the firm are \$341 and the liabilities \$2,268.

Kalamazoo, Mich.—The Foss Gasoline Engine Co., of this city, has filed articles of incorporation with a capital stock of \$10,000. It is the intention of L. P. Foss, the founder of the business, to erect a large factory building and to branch out.

Springfield, Ill.—The Spare Motor Wheel Co. of America, Ltd., of St. Anne, has been incorporated with a capital stock of \$425,000, and will engage in the manufacture of motor wheels. The new concern is an English corporation, and no names of incorporators are given.

Beaumont, Tex.—Work has been commenced by the Treadway-Junker company on a new brick building adjoining its present block on Orleans street. The new structure is to be one story in height, 40 by 80 feet, and, when completed, will be occupied as a garage by the Keith Electric and Auto Co.

New York—A judgment for \$19,195 has been entered by default against the Christie Direct Action Motor Co., formerly of 519 East Eighteenth street. The judgment is in favor of W. Gould Brokaw for the amount now due on a demand note of the company for the above amount, dated April 13, 1907, payable to the Christie Iron Works, which indorsed the note and delivered it to Mr. Brokaw. When the note was made Walter Christie was the president of the Christie Motor Car Co. and H.

H. Treadwell treasurer. The company was incorporated on February 21, 1905, and had a capital stock of \$300,000.

Baltimore, Md.—Charles M. Quigley has been appointed receiver for the Auto and Moto Co., of Baltimore.

Coshocton, O.—Samuel Siegrist and J. J. Murray expect to occupy their new garage at Walnut and Fifth streets by the end of the week.

St. Louis, Mo.—The Chicago Battery Co., of St. Louis, is now installed at 3685 Olive street. R. H. Combs is the manager of the concern.

Mexico City, Mex.—Mohler & De Gress are enlarging and altering their garage on Independencia street. The concern has the agency for the Stevens-Duryea.

Brooklyn, N. Y.—Charles E. Miller has opened his new branch store at 1594 Bedford avenue. This concern was recently appointed the local agent for the Hartford Rubber Works Co.

Albany, N. Y.—The Cities Motor Cab Co. has been incorporated with a capital stock of \$100,000, and will operate motor cabs for hire. The incorporators are J. B. Sabin and G. A. Denig.

New York—The Merchants' Auto Transportation Co. has been incorporated with a capital stock of \$500,000. It will engage in the renting of motor delivery wagons. The incorporators are E. T. Walton, R. W. Maginnis, L. E. White.

Boston, Mass.—The Whitten-Gilmour Co., agent for the Thomas car, expects to be located in its new garage on Hoylston street by January 12. George Crittenden has been added to the staff of the company.

New York—The Fiat Automobile Co. has opened a repair department on the third floor of its building at Broadway and Fifty-seventh street. The new department will be under the management of Emanuel Cedrino.

Lockport, N. Y.—The Preston Tire Co., which was looking for a location in Buffalo, has failed to find the required property there, and is now considering a Lockport proposition. The company manufactures motor and bicycle tires.

Cambridge, Mass.—Charles H. Lake, treasurer of the Cambridge Coach Co., has taken the agency for the Aerocar and Morse. He will have his headquarters at 11 Brattle street, in the Armstrong Transfer Co.'s office for the present.

Wilmington, Del.—It has been rumored that a large motor manufacturing concern is to be located here along the Newport turnpike. Whether there is any foundation for the report is not definitely known, but the board of trade has been endeavor-

ing to induce such a concern to locate here and it is probable that it has been successful.

Deland, Fla.—Messrs. Butner & Gordon have moved into their new garage on South boulevard.

New York—The Allenhurst Garage and Auto Station, of 135-147 West Thirty-seventh street, will be opened during the coming week.

Richmond, Ind.—The Richmond Automobile Co. has been incorporated with a capital stock of \$5,000 by E. R. McWhinney, S. B. Gams and W. M. Johnson.

Cincinnati, O.—The Watkins Motor Works have been incorporated with a capital stock of \$10,000. F. M. Watkins, W. C. Tunks and W. A. Watkins are the incorporators.

Boston, Mass.—The W. H. Marble Automobile Co., of Brocton, has filed articles of incorporation with a capital stock of \$50,000, and will deal in motor cars. Benjamin A. Hastings is the president of the concern and William H. Marble has been elected the treasurer.

Albany, N. Y.—The Motor Car Touring Society of the City of New York has filed articles of incorporation, and is organized for the purpose of encouraging touring. The directors include Stuyvesant Fish, Jr., Orme Wilson, Albert E. Gallatin, of New York; M. R. Kefroeh, of Pittsfield, Mass., and Percy R. Pyne, of Princeton, N. J.

Boston, Mass.—The plant of the Beverly Mfg. Co., on River street, Beverly, has been sold to Joseph F. Randolph, of Morristown, N. J. The company is the owner of certain patents for the manufacture of motor cars. Mr. Randolph has been connected with the concern as a director for a number of months.

New York—A. V. Porter, architect of the New York City Railway Co., has filed plans for the remodeling of the part of the old car barns at Eighth avenue and Forty-ninth street, now occupied by the New York Transportation Co. as a garage. The open court at the north is to be roofed in and will be used as an addition to the garage.

Minneapolis, Minn.—The C. P. Joy Auto Co. is now installed in its new garage on Second avenue South, next to the new building of the Minneapolis Club. This concern is the local branch of the Joy Brothers Co., of St. Paul, and represents the Packard and Pope-Hartford. Victor Stromquist has been appointed manager of the sales department.

Albany, N. Y.—Representatives of the de Dion-Bouton Co., of France, have been looking over the ground here in search of a suitable factory site. A fine site has been offered them at Sunnyside, with good transportation facilities, but no decision will be arrived at until the latter part of the month. The company desires to build a factory employing about 3,000 men, without delay, and Count Manuel de Cazerta,

the American representative of the concern, has been assured that considerable capital will be contributed by Americans.

Indianapolis, Ind.—The Terre Haute Automobile Co., of Vigo county, has changed its name to the Chaney Automobile Co.

Cleveland, O.—C. T. Collings who has been connected with the Peerless Motor Car Co., has resigned from that concern. In the future he will be with the Mora Motor Car Co., of Newark, N. J.

Albany, N. Y.—The Union Motor Car Co. has been incorporated with a capital stock of \$15,000, and will manufacture motor cars, etc. The incorporators are E. C. White, V. L. Kraft and A. V. Hart.

New York—Frank B. Widmayer, who has an establishment at Broadway and Eighty-fourth street, has opened up a branch store at 2384 Broadway. It is to be fitted up as a garage and general repair shop.

Charlotte, Mich.—C. R. Hathaway, who came here some months ago as auditor for the creditors of the Dolson Auto Co., has been appointed trustee of the company. He has filed his bond and entered upon his duties.

Binghamton, N. Y.—A foreign concern which is engaged in the manufacture of wire packing and motor parts and which is seeking a location in America has had its representatives looking over the plant formerly occupied by the Innes-Demarest Stove Co.

Winnipeg, Man.—It is possible that a motor car plant will be located in this city. A. H. Sisson, who is the general manager of the St. Louis Car Co., has been here looking over the ground, and if a suitable site can be obtained, a plant will be built which will employ 2,000 men.

Minneapolis, Minn.—The Northwestern Cadillac Co. has just moved into its new garage at 316-324 South Fifth avenue. Gus Ringland has been appointed manager of the repair and machine departments. In addition to representing the Cadillac and Pope-Waverley cars, the company will



New York—Ryder Patent Yarn and Mfg. Co.; capital stock, \$75,000; to manufacture rope, belt, hose, motor car tires, etc. Incorporators, H. Ryder, H. T. McTighe.

New York—George F. Ryan Mfg. Co.; capital stock, \$5,000; to deal in motor supplies. Incorporators, F. Knowlton, E. D. Cronin, of Brooklyn.

Brooklyn—Greenpoint Auto School; capital stock, \$6,000; to conduct a school of instruction regarding the running or construction of motor cars. Incorporators, C. Miller, J. Allspach.

New York—Recometer Co. of America; capital stock, \$30,000; to manufacture motor cars and accessories. Incorporators, F. H. Waggoner, F. E. Carstarp, of New York City; D. M. Miers, of Hasbrouck Heights, N. J.

carry a large stock of supplies and accessories.

Denver, Colo.—Gougar & Todd are to erect a garage on California street.

Jackson, Mich.—The Steel Swallow Auto Co. has increased its capital stock from \$100,000 to \$140,000.

Milwaukee, Wis.—The Pierce-Racine in the future will be represented here by the Charles Abresch Co., of Fourth and Poplar streets.

Newark, N. J.—G. A. Hoffman, a manufacturer of wind shields at 125 Clifford street, will remove his establishment to 290 Halsey street.

Chattanooga, Tenn.—The Chattanooga Automobile Co. is about to erect a garage on the site now occupied by the Fritts Hardware Co.'s warehouse on Broad street.

Lockport, N. Y.—William A. Gold has been appointed trustee of the Atkinson Automobile Garage Co. and S. V. Covert, A. Dussault and D. A. Duquette appraisers.

Philadelphia, Pa.—Peter J. Hughes has been elected president of the Auto Transit Co., vice J. M. Hill, who has resigned. Mr. Hill is now connected with the Commercial Truck Co.

New York—The Acme Tire Chain Co. has been incorporated with a capital stock of \$25,000 and will manufacture anti-skidding chains. The incorporators are A. B. Saliger and W. Kerrigan.

Boston, Mass.—Paul Rotch has severed his connection with the local branch of the Pope company, and in the future will be connected with the sales force of the Electric Vehicle Co. in this city.

Pittsfield, Mass.—The hearing on the question of making permanent the temporary receivership of the Berkshire Motor Car Co. has been postponed for 2 weeks. It is said an offer has been made for the sale of the company's property at a figure which will cover all liabilities.

Wilmington, Del.—The Delaware Automobile Storage and Repair Co., which was burned out last week, has secured repairs at the undertaking parlors of William J. Palmer, at 216 West Tenth street. In the meantime work will be rushed on the repairs to the former garage of the company at Eleventh and West streets.

Philadelphia, Pa.—A four-story garage is to be built at 1316-1318 Mount Vernon street. The property has been sold recently, but the name of the purchaser has not yet been made public. The lot is now occupied by a stable, but as soon as the present lease expires the structure will be torn down to make room for the garage.

Columbus, O.—The Buckeye Motor Car and Machine Co., of 494 North High street, has been consolidated with the North Side garage, of the same address, and in the future both concerns will be known as the North Side garage. E. B. McDowell, who has been acting as the head of both concerns, will continue as manager of the new company.

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